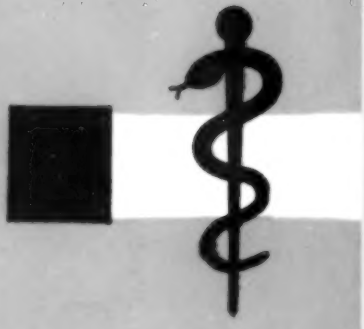
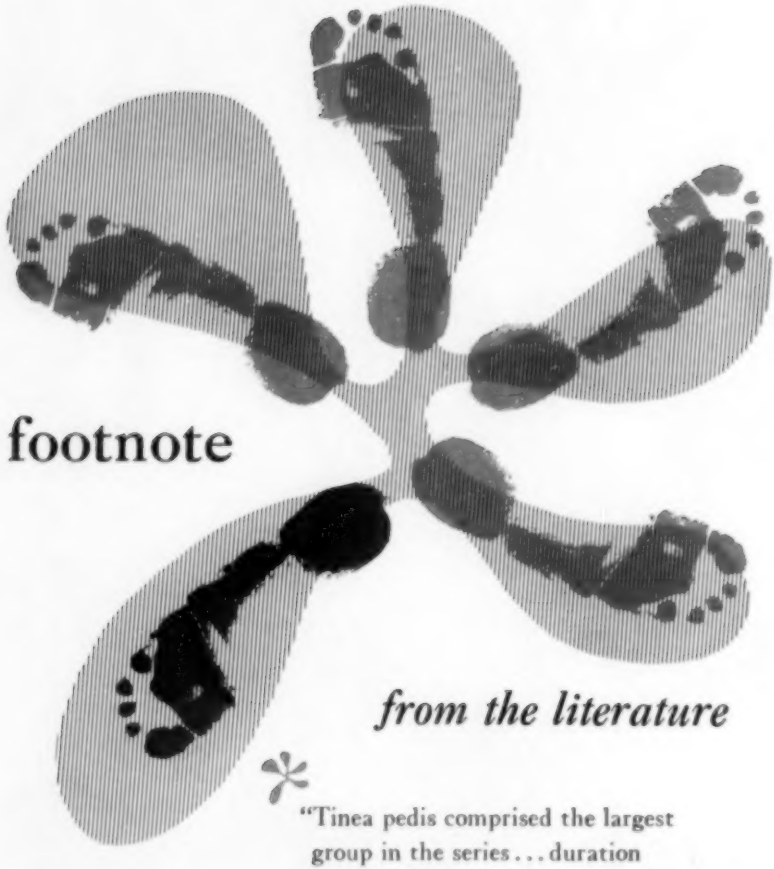
Medical TIMES

THE JOURNAL OF GENERAL PRACTICE



VOL. 82 JULY 1954 NO. 7



footnote

from the literature

"Tinea pedis comprised the largest group in the series... duration of treatment... ranged from one week to two months... in 24 patients the condition healed completely; in 24 it improved strikingly, and in 6 it failed to respond... no adverse reactions from applications of Asterol dihydrochloride were observed."

H. G. Ravits, *J. A. M. A.*, *148*:1005, 1952.

Asterol

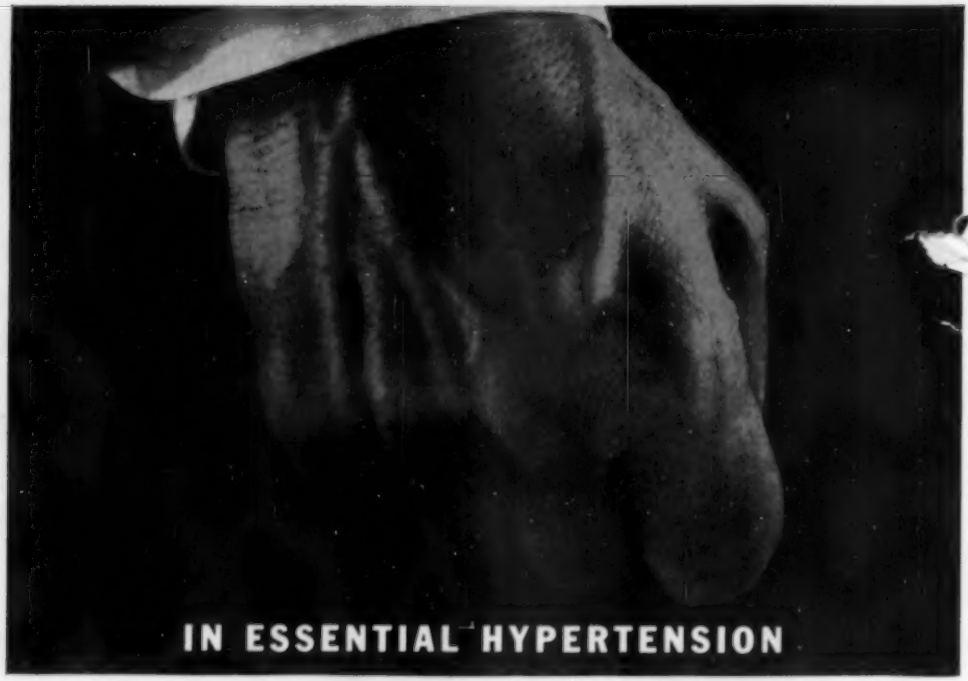
Dihydrochloride

'Roche'

5% tincture
5% ointment
5% powder

Asterol®—brand of diamthazole

HOFFMANN-LA ROCHE INC • ROCHE PARK • NUTLEY 10 • NEW JERSEY



IN ESSENTIAL HYPERTENSION

Tense muscles, high-strung nerves—signs of the emotional strain that contributes so greatly to keeping the blood pressure elevated.[1]

BĒPLETE helps the patient with mild essential hypertension attain a more stable emotional tone, stimulates the appetite, provides vitamins, and aids in establishing a continuing sense of well-being.

DOSAGE: One tablet, or 1 teaspoonful (4 cc.) in ¼ glass of water, before meals and at bedtime.

FORMULA: Each 4 cc. or 1 tablet contains:

Phenobarbital	16 mg. (0.25 grain)
Vitamin B_1	1.5 mg.
Vitamin B_2	1.0 mg.
Vitamin B_6	0.33 mg.
Vitamin B_{12}	1.66 mcg.
Niacinamide	10.0 mg.
Calcium pantothenate	0.2 mg.
Alcohol, 15% (in elixir)	

AVAILABLE: BĒPLETE, elixir, bottles of 1 pint; tablets, bottles of 100. Also available: BĒPLETE with Belladonna, in elixir and capsule forms.

1. Page, I.H.: In Stroud, W.D.: Diagnosis and Treatment of Cardiovascular Disease. F. A. Davis Co., Philadelphia, 1952, p. 1033

PHILADELPHIA 2, PA. Wyeth®

BĒPLETE

VITAMINS-B COMPLEX WITH PHENOBARBITAL

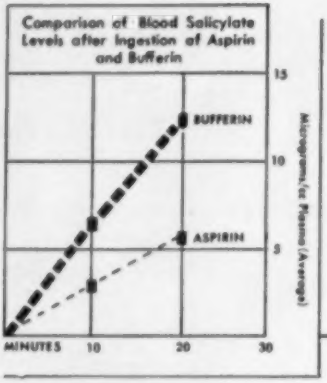
CONTENTS

Medical Times is published monthly by Romaine Pierson Publishers, Inc., with publication offices at 34 North Crystal Street, East Stroudsburg, Pa. Executive, advertising and editorial offices at 676 Northern Boulevard, Great Neck, L. I., N. Y. Acceptance under section 34.64 P.L. and R., authorized February 23, 1950 at East Stroudsburg, Pa.

Faster Pain Relief with BUFFERIN®

1 ACTS TWICE AS FAST AS ASPIRIN

The antacids in Bufferin speed its pain-relieving ingredients through the stomach and into the blood stream. Actual chemical determinations show that within ten minutes after Bufferin is ingested blood salicylate levels are higher than those attained by aspirin in twice this time.[1]



2 DOES NOT UPSET THE STOMACH

Bufferin's antacid ingredients protect the stomach against aspirin irritation. This has been clinically demonstrated on hundreds of patients.

in usual doses

In a series of 238 cases, 22 had a history of gastric distress due to aspirin but only one reported any distress after taking 2 Bufferin tablets (equivalent to 10 grains of aspirin).[1]

in large doses

In a recent study group, 1006 patients received, over a 24 hour period, 12 Bufferin tablets (equivalent to 60 grains of aspirin). Although 72 had a history of being sensitive to aspirin, only 18 reported any gastric side-effect with Bufferin.[2]

1. Effect of Buffering Agents on Absorption of Acetylsalicylic Acid. J. Am. Pharm. Assoc., Sc. Ed. 39:21, Jan. 1950
2. Gastric Tolerance for Aspirin and Buffered Aspirin. Ind. Med. 20:480, Oct. 1951

INDICATIONS: Simple headaches, neuralgias, dysmenorrhea, muscular aches and pains, discomfort of colds and minor injuries. Particularly useful when gastric hyperacidity is a complication. Useful for relieving pain in the treatment of arthritis.

EACH BUFFERIN TABLET contains 5 grains of acetylsalicylic acid, together with optimum amounts of the antacids aluminum glycinate and magnesium carbonate.

AVAILABLE in vials of 12 and 36 tablets and in bottles of 100. Tablets scored for divided dosage.

Bristol-Myers Co., 19 West 50 St., New York 20, N. Y.

CONTENTS

new drug action

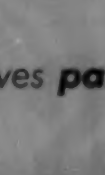
DACTIL is *eutonic*—that is, it restores and maintains normal visceral tonus whereas "antispasmodics" tend to produce an inert, paralyzed viscus.

visceral eutonic...

DACTIL

PLAIN AND WITH PHENOBARBITAL

relieves ***pain*** ***spasm*** *usually in* *ten minutes*



see it work in your office

Use your DEMONSTRATION SUPPLY to note its effect in patients with gastroduodenal and biliary spasm, cardiospasm, pylorospasm, spasm of biliary sphincter, biliary dyskinesia, gastric neuroses and irritability, and as adjunctive therapy in selected inflammatory hypermotility states. A specific for upper gastrointestinal pain or spasm, DACTIL is not intended for use in peptic ulcer.

TWO FORMS: *Q I D*

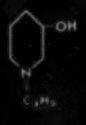
DACTIL with Phenobarbital in bottles of 50 capsules. There are 50 mg. of DACTIL and 16 mg. of phenobarbital (warning—may be habit-forming) in each capsule.

DACTIL (plain) in bottles of 50 capsules, each containing 50 mg. of DACTIL.

DACTIL is the only brand of N-ethyl-3-piperidyl diphenylacetate HCl.

Lakeside pioneers in piperidols

Laboratories INC. • MILWAUKEE 1, WISCONSIN



MEDICAL BOOK NEWS

96% BIRTH RATE

with des or desPLEX

TWO DEPENDABLE PRODUCTS FOR LIFE *in* THREATENED ABORTION, HABITUAL ABORTION AND PREMATURE LABOR

des, the only micronized, triple crystallized (Grant Process) Stilbestrol (U.S.P.) Tablets—used in the treatment of pregnant women, with a history of one, two or more abortions—***averaged 96% normal live babies delivered***[1,2,3].

After extensive clinical experience with des, Karnaky[1], Gitman and Koplowitz[2] and Ross[3] as well as countless other clinicians wholeheartedly endorse the sound therapeutic necessity for the use of des, in threatened abortion, habitual abortion and premature labor.

In a most recent publication, Karnaky has demonstrated that des, in massive doses (275 milligrams daily) provides optimum therapeutic results with maximum safety.

des—25 milligram tablets—highly micronized, triple crystallized (Grant Process) Stilbestrol (U.S.P.)—dissolve within a few seconds and are uniformly absorbed into the blood stream. Available in containers of 30 and 100 tablets.

new desPLEX—vitaminized, micronized Stilbestrol (U.S.P.). Border-line deficiency of B complex, especially Folic Acid, may sometimes prevent maximum utilization of estrogens. Histories of such cases indicate that the woman had difficulty in metabolizing endogenous or ingested estrogens. Not unusually, mild to severe nausea and vomiting is symptomatic. For additional support, when indicated, prescribe desPLEX, micronized Stilbestrol (U.S.P.), fortified with vitamin C plus B complex, including Folic Acid and B_{12}.

Karnaky[4] and Javert[5] agree that C and B complex vitamins and Folic Acid are necessary for the normal physiological metabolism of estrogens. Jailer[6] further substantiates that a border-line deficiency of Folic Acid may result in premature separation of the placenta. *That is why desPLEX is the product of choice.*

desPLEX—25 milligram tablets—vitaminized, micronized, triple crystallized (Grant Process) Stilbestrol (U.S.P.) fortified with C and B complex vitamins, particularly Folic Acid. Available in containers of 30 and 100 tablets.

For further information, write:

Medical Director

GRANT CHEMICAL COMPANY, INC.

121 East 24th Street

New York 10, N. Y.

References:

1. Karnaky, K. J., Amer. J. Obst. & Gyn. 53:312, 1947. 2. Gitman, L. and Koplowitz, A., New York State J. Med. 50:2822, 1950. 3. Ross, J. S., N. Nat. M.A. 43:20, 1951. 4. Karnaky, Karl J., Surg., Gyn. & Obst. 91:617, 1950. 5. Javert, C. T., New York State J. Med. 48:2595, 1948. 6. Jailer, J. W., J. Clin. Endrocinol. 9:557, 1949.

Medical TIMES

THE JOURNAL OF GENERAL PRACTICE

Incorporating the Long Island Medical Journal and Western Medical Times

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Published at East Stroudsburg, Pa., with executive and editorial offices at 676 Northern Boulevard, Great Neck, L. I., N. Y. Book review and exchange department, 1313 Bedford Ave., Brooklyn, N. Y. Subscription rate, $10.00 per year. Notify publisher promptly of change of address.

whole-root Raudixin:

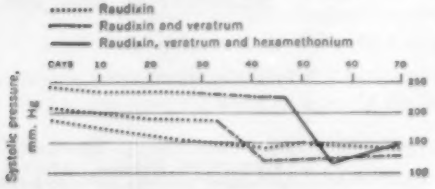
safe, smooth, gradual reduction of blood pressure

Raudixin is the most prescribed of rauwolfia preparations. It is *powdered whole root* of Rauwolfia serpentina—not just one alkaloid, but all of them. Most of the clinical experience with rauwolfia has been with Raudixin.

Raudixin lowers blood pressure in gradual, moderate stages. "A sense of well-being, decrease in irritability, 'improvement in personality' and relief of headache, fatigue and dyspnea" are frequently described by patients.[1]

Raudixin is base-line therapy.
In mild or moderate cases it is usually effective alone; "...when rauwolfia is combined with other hypotensive agents, an additive hypotensive effect frequently is observed even in severe hypertension."[2] "It produces no serious side effects. It apparently does not cause tolerance."[1] 50 and 100 mg. tablets, bottles of 100 and 1000.

Raudixin alone and combined with other hypotensive agents



Raudixin Squibb rauwolfia

SQUIBB

1. WILKINS, R. W., AND JUDSON, W. E.: NEW ENGLAND J. MED. 248:48, 1953.
2. FREIS, E. D.: M. CLIN. NORTH AMERICA 38:1158, 1954.

BOARD OF ASSOCIATE EDITORS

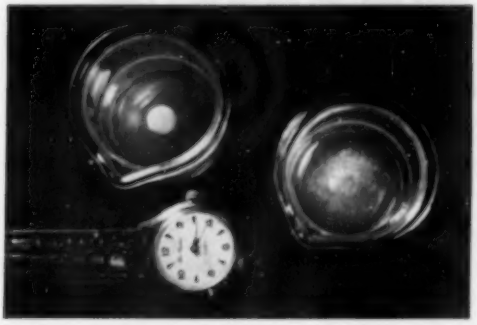
here's why your patient gets

3:15—Disintegration Test begins in actual stomach fluids (pH 2.7). Beaker at left contains ordinary enteric-coated erythromycin. At right is new *FILMTAB* ERYTHROCIN Stearate (Erythromycin Stearate, Abbott).

Earlier Blood Levels *from*

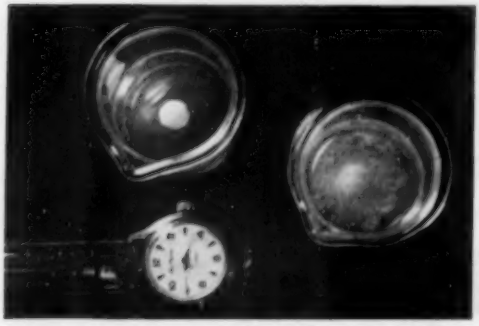
filmtab* ERYTHROCIN®

- DISINTEGRATES FASTER THAN ENTERIC COATING
- HIGH BLOOD CONCENTRATIONS WITHIN 2 HOURS

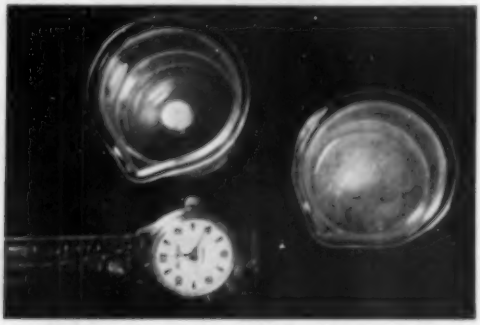


3:20—Five minutes later, *Filmtab** coating has already started to disintegrate. The tissue-thin film actually begins to dissolve within 30 seconds after your patient swallows tablet.

3:30—*Filmtab** is now completely dissolved. At this stage, ERYTHROCIN is ready to be absorbed, and ready to destroy sensitive cocci—even those resistant to other antibiotics.



3:45—Now the *Filmtab** tablet mushrooms out with all of the drug available for absorption. Note that enteric-coated tablet is still intact. Tests show that the new Stearate form definitely protects ERYTHROCIN against gastric acids.



4:00—Because of *Filmtab** (marketed only by Abbott) the drug is released faster, absorbed sooner. In the body, effective ERYTHROCIN blood levels now appear *in less than 2 hours* (instead of 4-6 hours as before).

Abbott

*TM for Abbott's film coated tablets, pat. applied for.

467150

In Neuritis—

is temporary relief enough?

Now—

THE LONG PERIOD OF DISTURBING SYMPTOMS CAN BE REDUCED BY THE PROMPT USE OF—

PROTAMIDE

When you have a case of neuritis (intercostal, facial or sciatic) where the inflammation of nerve roots is not caused by mechanical pressure, let Protamide demonstrate how much faster lasting relief can be obtained than with usual therapy.
Usual dose: one ampul every day for five days or longer.

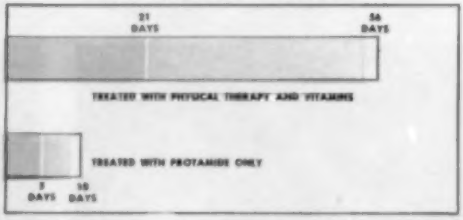
NEURITIS

(Sciatic • Intercostal • Facial)

A COMPARISON BETWEEN COMPARABLE GROUPS WITH AND WITHOUT PROTAMIDE THERAPY

CONTROL—156 Patients
The Course of the Disease
Was 21 Days to 56 Days

PROTAMIDE—84 Patients
Complete Relief was
Obtained in 5 to 10 Days



SHERMAN LABORATORIES
BIOLOGICALS • PHARMACEUTICALS
WINDSOR DETROIT 10, MICH. LOS ANGELES

"TREATMENT OF NEURITIS WITH PROTAMIDE"
Richard T. Smith, M.D.
Associate in Medicine and Chief of Arthritis at Jefferson Medical College and Hospital; Associate Physician and Chief of Arthritis, Pennsylvania Hospital; Director of Department of Rheumatology, Benjamin Franklin Clinic.

REPRINTS AVAILABLE

Off the Record . . .

True Stories From Our Readers

Each incident described has been contributed by one of our readers. Contributions describing actual and unusual happenings in your practice are welcome. For obvious reasons only your initials will be published. An imported German apothecary jar will be sent in appreciation for each accepted contribution.

No Trains Today

Here's one that happened to my uncle, since deceased.

Uncle met a patient of his, a Mrs. Kerr (pronounced car) who was pushing her eighth child in a buggy along the sidewalk.

He stopped to admire the child saying, "So this is the last little Kerr, is it?"

"Yes, begorah, and it's the caboose too, Doctor!" she replied.

W. H. C., M.D.
Washington, D. C.

I 'Spose

A male patient came into the office and asked for a shot of penicillin. My office nurse asked, "Why do you want a shot of penicillin?" He said, "Lady, I 'spose I done been getting acquainted too much."

T. F. B., Jr., M.D.
Auburn, Ala.

Gulp!

I was treating a young lady for such a severe bronchitis that when coughing she would vomit, so I prescribed rectal suppositories of Codein and Veronal. The next day she called me and said that she was having a "gosh awful" time swallowing those newfangled capsules. Was her face red when I explained how they should be taken!

W. B. M., M.D.
Washington, D. C.

Doctor It's Cold Outside

It was dead-of-winter, and I was applying the cuff of my sphygmomanometer which I had just removed from my cold surgical bag. The house patient remarked, "Doctor, are you sure you didn't remove this from a corpse?"

W. B. C., M.D.
Waukesha, Wis.

Please, Doctor

There was the time, during my Senior year in Medical School, when the young Assistant Professor of Obstetrics was conducting a group of students through the hospital wards. "Now, gentlemen," he said, in his best dignified professorial voice, "I am going to show you a case of cracked nipples." The group approached the bed of the patient, who was facing toward the wall. Tapping her lightly on

—Concluded on page 21a

Through its probable action on the labyrinth, dependable control of vertigo and nausea has made Dramamine the most widely-prescribed product in its field.

Vertigo: The Labyrinthine Structure and Dramamine®

Dramamine's remarkable therapeutic efficiency is believed to be the result of suppression of the over-stimulated labyrinth. Thus it prevents the resulting symptom complex of vertigo, nausea and, finally, vomiting.

First known for its value in motion sickness, Dramamine is now widely prescribed for the nausea and vomiting of pregnancy, electroshock therapy, certain drugs and narcotization. It relieves the vertigo of Ménière's syndrome, fenestration procedures, labyrinthitis, hypertensive disease and also that accompanying radiation and certain antibiotic medication.

A most impressive number of clinical studies shows that Dramamine has a high therapeutic index and minimal side actions. Drowsiness is possible in some patients but in many instances this side action is not undesirable.

Dramamine (brand of dimenhydrinate) is available in tablets of 50 mg. each; liquid containing 12.5 mg. per 4 cc. Dramamine is accepted by the Council on Pharmacy and Chemistry of the American Medical Association. G. D. Searle & Co., Research in the Service of Medicine.

for
APPETITE SUPPRESSION
IN OBESITY

RAUWIDRINE™

A New Experience in Weight Control Management

In anti-obesity therapy Rauwidrine—combining Rauwiloid (1 mg.) and amphetamine (5 mg.) in one tablet—presents important advantages:

The patient gains a remarkable sense of tranquil well-being which makes even grossly reduced caloric intake acceptable.

The appetite-suppressing effect of amphetamine can be maintained for long periods, without fear that undesirable side actions will make amphetamine intolerable for the patient—as so often occurs with amphetamine alone—and without resorting to barbiturates.

The tranquilizing action of Rauwiloid prevents overstimulation, virtually eliminates jitteriness.

The mild sedative action of Rauwiloid prevents excitation—the patient usually enjoys restful sleep.

The gently bradycrotic, heart-calming action of Rauwiloid largely prevents palpitation—avoids the cardiac pounding so frightening to the patient.

FOR MOOD ELEVATION, TOO

In depression, apathy, mental dullness, psychogenic asthenia, and other functional complaints, Rauwidrine presents the mood-elevating influence of amphetamine augmented by that of Rauwiloid, and virtually free from the side actions which so frequently vitiate therapy when amphetamine is used alone.

DOSAGE: ***For obesity,*** one to two tablets 30 to 60 minutes before each meal. ***For mood elevation,*** one to two tablets, before breakfast and lunch. Dosage should be individualized, and up to 6 tablets per day (in 3 doses) may be given if needed.

Riker LABORATORIES, INC.

8480 BEVERLY BOULEVARD • LOS ANGELES 48, CALIFORNIA

—Concluded from page 17a

the buttock, the professor said: "Good morning! How are your nipples today?" The woman turned around quickly and frowned angrily at the young professor. "Heh, heh, heh," said he, with a sheepish grin to the group of students. "Wrong woman."

B. E. J., M.D.
Washington, D. C.

Possible Cause?

I was quizzing a patient while trying to find the cause of her backache. "What kind of a mattress do you have?" I asked. "There's nothing wrong there," she answered. "We just got a set of them new intercourse mattresses."

F. F. W., M.D.
Fillmore, Calif.

Synonym!

During World War II, one of my office visitors was a boy about nineteen years old. He was, judging from his appearance, from one of the surrounding rural districts.

"Doctor," he said, "I'm afraid I have venereal disease."

"So," I said, "you have a discharge?"

"Oh, no, Doctor. I've never been in the service. I'm 4-F."

P. N. T., M.D.
Washington, D. C.

What's In A Name?

A short time ago an elderly matron reported to my office complaining of the usual symptoms of long-standing constipation. The constipation was aggravated by her extreme nervousness and many, many extracurricular social activities. After discussing her problem in great length and advising her to develop regularity by taking plenty of time for her normal body functions, she was dismissed.

A little while later the frustrated local pharmacist was on the telephone informing me that Mrs. "X" was at his apothecary insisting that she wished to purchase a bottle of "Time."

D. S. W., M.D.
Miami Springs, Fla.

Why Not?

One of my male patients complained of pain in his abdomen. When I questioned him on his bowel habits, he said he was constipated but felt better since he took a "douche" last night!

E. R., M.D.
Wilmington, Del.

They Sure Do

I recently had a small girl patient of mine, aged 6, when told she would have to have a "needle," exclaimed: "Please, doctor, use a needle with a dull point, the sharp one's hurt too much."

B. L. A., M.D.
Upper Darby, Pa.

Misnomer

About closing time one day, a frantic woman rushed into my office. "Doctah, I wants a thorough examination; I gotta 'closed circut.' I gotta be operated on."

Further questioning and examination revealed a closed cervix. She had been advised to have the cervix dilated.

A. M. C., M.D.
Fort Worth, Texas

A New Era in Medicine

CLINICAL ENZYMOLOGY

Parenzyme

Intramuscular trypsin, 5 mg./cc.

NATIONAL

For rapid, dramatic reduction
of acute, local inflammation
regardless of etiology

Diagnosis, Please!

WHICH IS *YOUR* DIAGNOSIS?

1. Food in the stomach
2. Bezoar ulcer
3. Carcinoma
4. Gastritis

(ANSWER ON PAGE 76a)

gentia·jel

ONLY gentian violet treatment you can prescribe

IN SINGLE-DOSE APPLICATORS

for

antibiotic moniliasis[1]

diabetic vulvitis[2]

vaginal thrush[3]

pregnancy moniliasis

93% **clinically effective**[4] in the most resistant cases during the last trimester of pregnancy

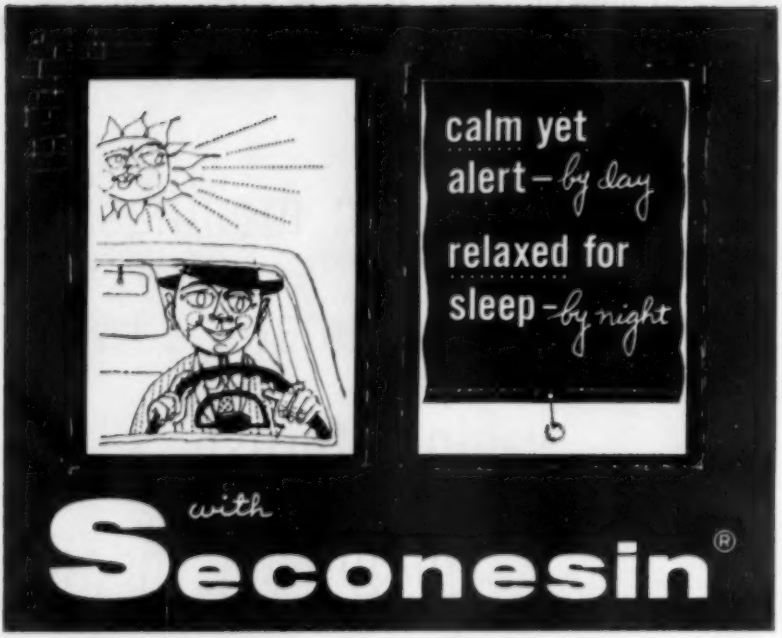
1. Editorial: J.A.M.A. 149:763 (June 21) 1952. 2. Bernstine, J.B. and Rakoff, A.D. "Vaginal Infections, Infestations, and Discharges," the Blakiston Co., Inc., 1953, p. 271. 3. Combined Textbook of Obstetrics and Gynecology, Edited by Dugald Baird, 5th Ed., E. & S. Livingstone Ltd., 1950. 4. Waters, E.G. and Wager, H.P.: American Jour. of Obstetrics & Gynecology, 60:885, 1950.

AVAILABILITY: *gentia·jel* 12 single-dose plastic disposable applicators on prescription only.

SAMPLES ON REQUEST

Westwood Pharmaceuticals · 468 Dewitt Street, Buffalo 13, N. Y.

DIVISION OF FOSTER-MILBURN CO



the modern relaxant-sedative!

Seconesin relaxes tense, anxious, nervous patients so efficiently throughout the day—it stops tension which destroys sleep at night.

The new relaxant-sedative, **Seconesin,** *relaxes both mental and physical tensions* — yet leaves the patient mentally alert—not drowsy—able to cope with the day's needs and work.

Seconesin induces a marked feeling of well-being -- not the stimulated euphoria of amphetamine-like drugs, but a relaxed feeling of being pleasantly at ease.

A Higher Degree of Safety is assured with **Seconesin.** It acts rapidly — is eliminated rapidly — and is non-cumulative.

SAMPLES

Send for **SAMPLES** for patient or personal trial and detailed information.

Composition of SECONESIN: Lime-green, scored tablets each containing Mephenesin 400 mg. and Secobarbital 30 mg.

Dose: 1 tablet t.i.d., p.c.; 1 or 2 tablets on retiring if needed.

CROOKES LABORATORIES, INC. Crookes MINEOLA, N. Y.

Therapeutic Preparations for the Medical Profession

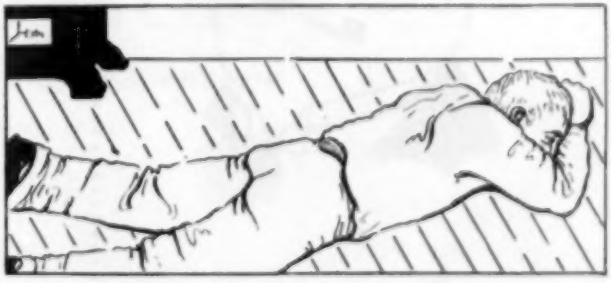
DURING THE MENOPAUSE, the relaxant-calmative action of **SECONESIN** often suffices to keep distressing symptoms under control.

Coroner's Corner

SUICIDE...?

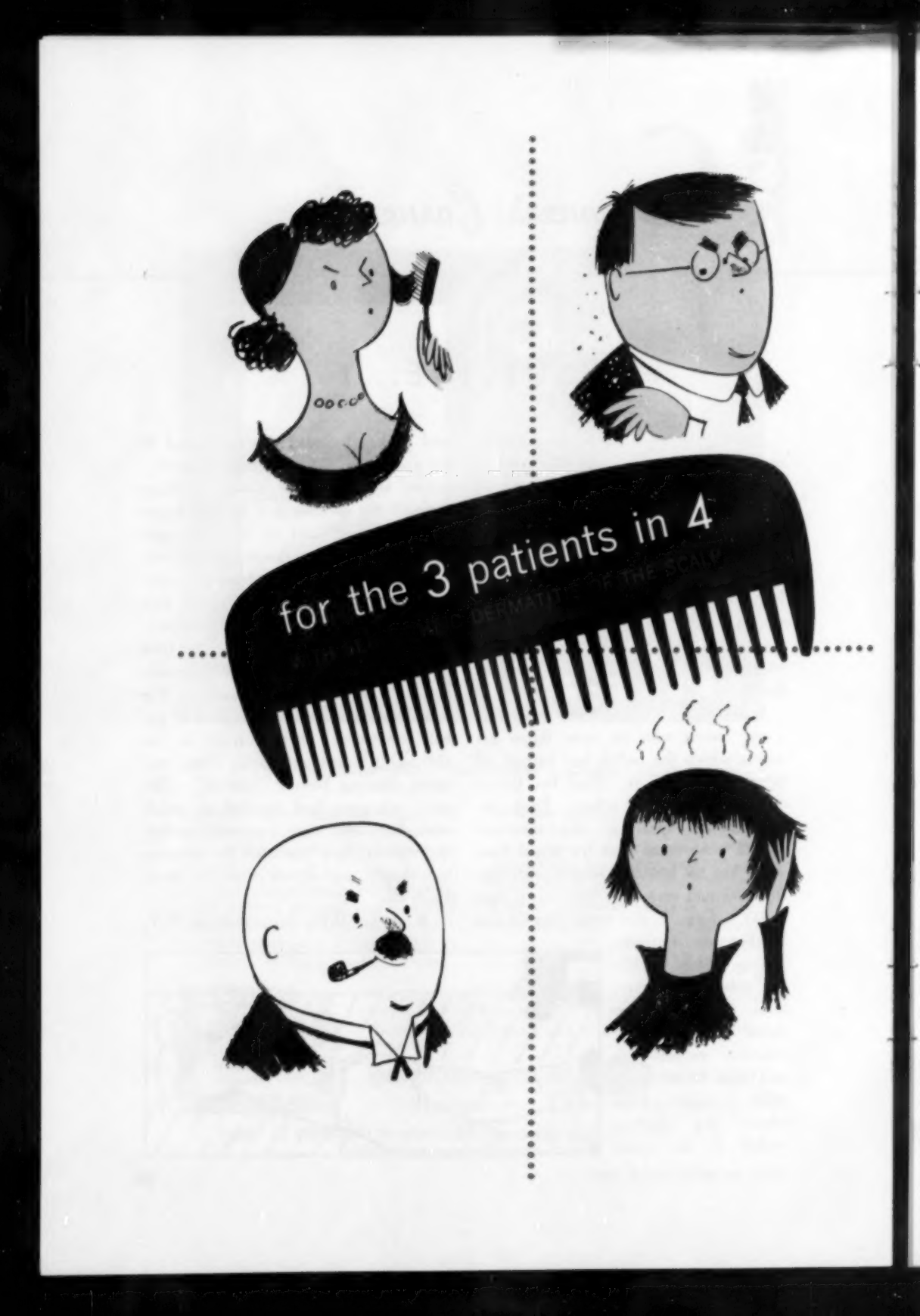
One day I was called by the police to examine an old man who had died in a cheap rooming house. I was told that he had slashed his wrists and throat, and had taken gas. When I arrived at the scene, the old man, bloated and odoriferous, had already been placed in a hearse, on the presumed diagnosis of suicide. I looked in at him, saw the bloody lacerations of the wrists and neck, and released the body.

However, I did examine the room—a tiny room with an open flame gas heater which the police had turned off when they broke in. Then two things made me pause and reflect. From the amount of bloating, the deceased should have been dead for about four days, but his landlady stated positively that she had seen him little more than a day before. I also noted that he was a Roman Catholic, among whom suicides are relatively uncommon. Then I remembered that heat accelerates putrefaction, and that hemorrhagic blebs might form where the clothing ended at the wrists and neck. I closed the room and lit the gas heater. A policeman climbed a ladder at intervals to watch the flame through the window and in four hours the heater had used up all the oxygen in the room and the flame had died out.



At autopsy, I found a fresh coronary thrombus. It was then apparent that the man had had a quick fatal coronary. The heater had been "on" at the time of death, making the room intensely hot, and hastening decomposition. The flame had gone out, but the flow of gas had continued. Blebs formed on the old man's wrists and neck; these ruptured, leaving bloody "gashes". The poor old man had smelled so much when first seen, that everyone, including myself, had hesitated to examine him closely, and almost called his death a suicide.

R. J. L., M.D., Trumansburg, N.Y.


for the 3 patients in 4

. . . check itching and scales
for 1 to 4 weeks

Have you prescribed SELSUN *for them yet?*
Here are the results you can expect: complete control in 81 to 87 per cent of all seborrheic dermatitis cases, and in 92 to 95 per cent of common dandruff cases. SELSUN keeps the scalp scale-free for *one to four weeks*—relieves itching and burning after only two or three applications.

Your patients will find SELSUN remarkably easy to use. Applied and rinsed out while washing the hair, it takes little time, no complicated procedures or messy ointments. Ethically advertised and dispensed only on your prescription. In 4-fluidounce bottles with directions on label. Abbott

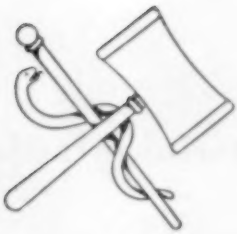
prescribe

SELSUN®

SULFIDE *Suspension*

(Selenium Sulfide, Abbott)

1-61-54



What's Your Verdict?

Edited by Ann Picinich, Member of the Bar of New Jersey

WHETHER it was a fortunate choice of medicines, or a happier selection of advice, the defendant had a way of restoring people to health. What he lacked was the license to practice medicine, being but an honest shoemaker by trade.

At the relation of the Secretary of the State Board of Medical Examiners, the State objected to the defendant's professional activities. "Under our police power to protect the health and welfare of the general public," said the State, "it is our right to require a license for the practice of medicine. Not having a license, defendant should be enjoined from his practice."

"But," contended the defendant, "I have never charged my patients. My only purpose in doctoring is to benefit mankind and help those who suffer."

On further examination, the defendant admitted that a basket was kept on his table into which many patients, out of gratitude or the power of suggestion, left contributions. These contributions, the defendant claimed, were used to purchase medicines and supplies used in his practice.

Is compensation necessary to the practice of medicine?

THIS COURT SAID: Compensation is an essential element of the practice of medicine, as defined in the statute prohibiting unlicensed practice. The contributions made in this case were controlled exclusively by the defendant, and therefore constituted an accepted compensation. The defendant was enjoined from the further unlicensed practice of medicine.

Based on decision of Supreme Court of Arizona

ONE Ointment
FOR ALL usual topical bacterial infections

'NEOSPORIN'®
brand

Polymyxin B—Bacitracin—Neomycin

ANTIBIOTIC OINTMENT

Streptococci

Staphylococci

Clostridia

Corynebacteria

Spirochetes

Neisseria

Mycobacteria

Escherichia sp.

Aerobacter sp.

Klebsiellae

Hemophili

Proteus sp.

Pseudomonas sp.

'Aerosporin'®
(Polymyxin B) Sulfate*
for *Ps. aeruginosa* and other gram-negative bacilli,

Bacitracin
for *Streptococci, Staphylococci*
and other gram-positive organisms,

Neomycin
for *Pr. vulgaris* and other organisms,
both gram-positive and gram-negative,

in a special petrolatum base.

Tubes of ½ oz. with applicator tip.

*U. S. Patent No. 2,565,057

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Dependable,

potent, safe

therapy, in

ARTHRITIC AFFECTIONS

—for relief of pain, "'round-the-clock"

—for retarding or reversing the disease process, by augmenting or prolonging the action of endogenous (or administered) ACTH and cortisone.

—with freedom from adverse side reactions

A. H. ROBINS CO., INC. • RICHMOND 20, VA.
Pharmaceuticals of Merit since 1878

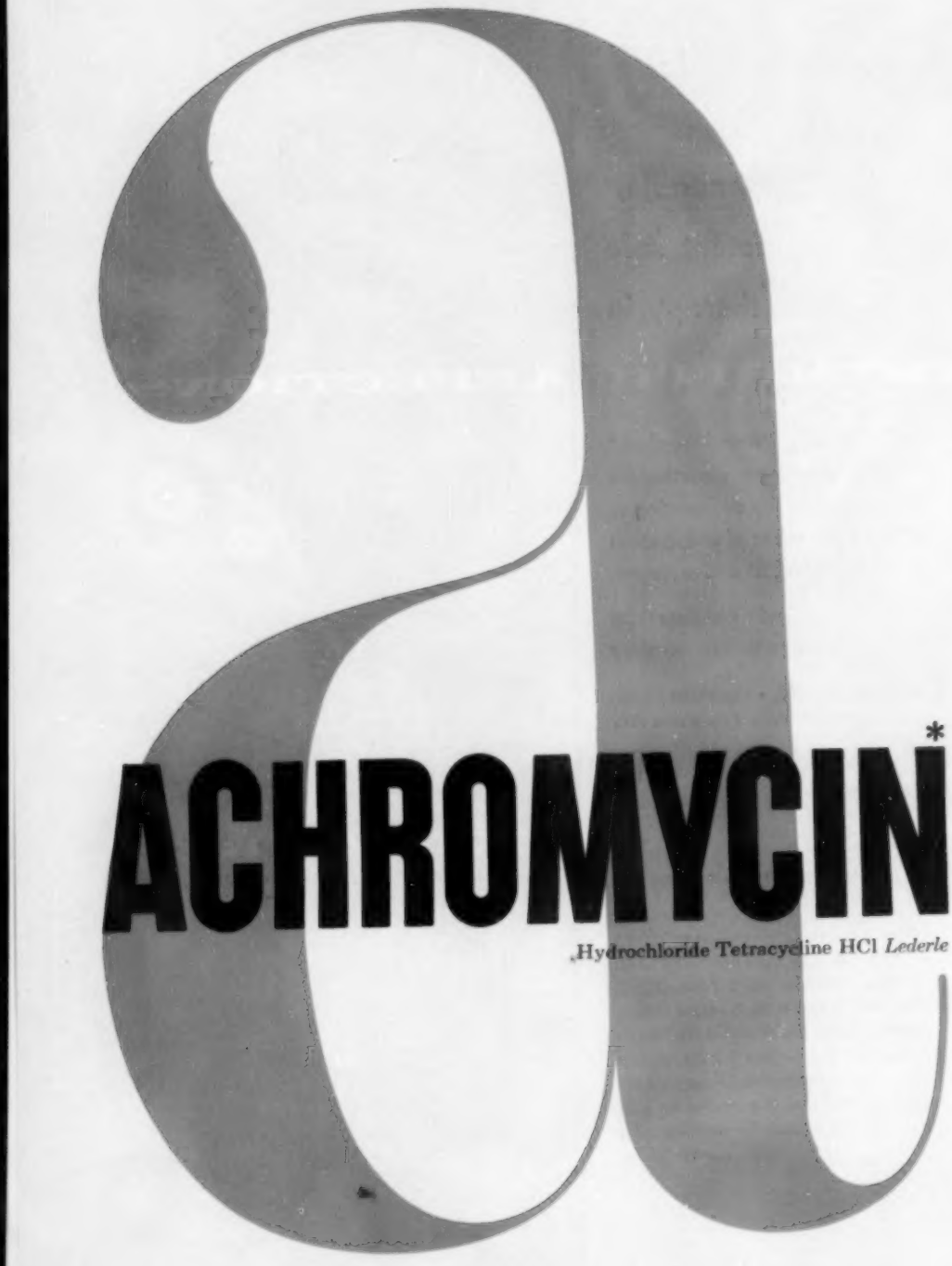
Robins

PABALATE®

PABALATE-SODIUM FREE

SALICYLATE • PARA-AMINOBENZOATE • ASCORBIC ACID

FORMULA: *Pabalate*—sodium salicylate U.S.P. 0.3 Gm. (5 gr.), para-aminobenzoic acid (as sodium salt) 0.3 Gm. (5 gr.), ascorbic acid 50 mg., in each yellow enteric coated Tablet. *Pabalate-Sodium Free*—ammonium salicylate 0.3 Gm. (5 gr.), para-aminobenzoic acid (as the potassium salt) 0.3 Gm. (5 gr.), ascorbic acid 50 mg., in each Persian Rose color enteric coated Tablet.


ACHROMYCIN*
Hydrochloride Tetracycline HCl Lederle

A NEW BROAD SPECTRUM ANTIBIOTIC

"well tolerated by all age groups"

ACHROMYCIN, a new broad-spectrum antibiotic, has proved its effectiveness in clinical trials among all age groups, and has definitely fewer side reactions associated with its use.

ACHROMYCIN maintains effective potency for a full 24 hours in solution, and provides rapid diffusion in tissues and body fluids.

ACHROMYCIN is effective against beta hemolytic streptococcic infections, *E. coli* infections, meningococcic, staphylococcic, pneumococcic and gonococcic infections, acute bronchitis and bronchiolitis, atypical pneumonias, and certain mixed infections.

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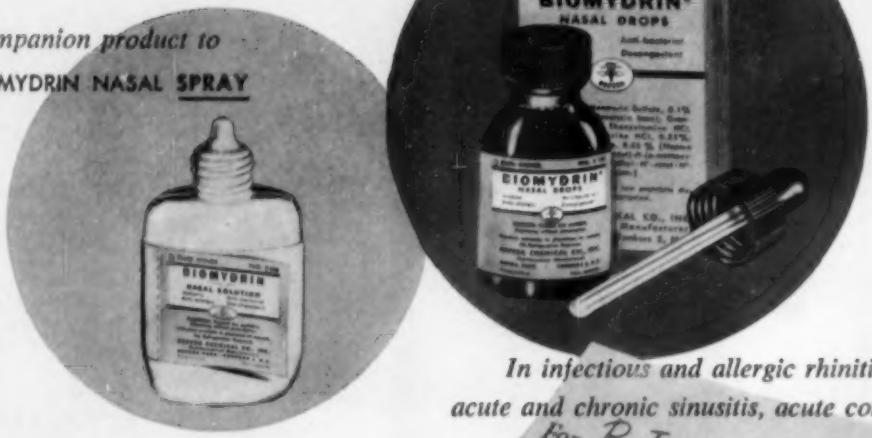
CAPSULES: 50, 100, 250 mg. • PEDIATRIC DROPS: Cherry Flavored, 10 cc. vials, 100 mg. per cc., approximately 25 mg. per 5 drops • ORAL SUSPENSION: Cherry Flavored, 1 oz. vials, 250 mg. per teaspoonful (5 cc.) • TABLETS: 50, 100, 250 mg. • SOLUBLE TABLETS: 50 mg. per tablet • SPERSOIDS* Dispersible Powder: Chocolate Flavored, 12 and 25 dose bottles, 50 mg. per rounded teaspoonful (3 Gm.) • INTRAVENOUS: 100, 250, 500 mg. vials.

LEDERLE LABORATORIES DIVISION *American Cyanamid Company* PEARL RIVER, N. Y.

NEW!

BIOMYDRIN® Nasal DROPS



Companion product to
BIOMYDRIN NASAL SPRAY

In infectious and allergic rhinitis, acute and chronic sinusitis, acute coryza

For R. Jones Age Adult
℞
Biomydrin
Nasal Drops 15.0 c.c.
Sig: 4 drops in each nostril q.i.d.

Biomydrin Nasal Drops are being introduced at the request of physicians who prefer drops for nasal therapy. Biomydrin Nasal Drops provide the same bactericidal, anti-allergic, and decongestant properties as Biomydrin Nasal Spray. Biomydrin Nasal Drops also make it more convenient to apply Biomydrin by tampon or wick.

Dosage: Adults, 4 to 5 drops in each nostril 4 or 5 times a day. Infants and children, 1 to 3 drops in each nostril 3 times a day. Supply: ½ ounce bottle with dropper.

NEPERA CHEMICAL CO., INC.
Pharmaceutical Manufacturers • Yonkers 2, N. Y.

LETTERS TO THE EDITOR

This department is offered as an Open Forum for the discussion of topical medical issues. All letters must be signed. However, to protect the identity of writers, who are invited to comment on controversial subjects, names will be omitted when requested.

This Mighty Public Phobia

A great crusade has come into being. It has mustered thousands of men and women to its ranks. Television, radio and the press have won over the public *en masse*. Millions of dollars have poured into its coffers for the great fight against the most notorious scourge of mankind, *Fight cancer!* This is the battle cry of the masses. This has become the modern crusade.

A dissenter begs leave to voice his not uninformed opinion of this great drive to smash the bane of mankind. For the fight against the dreaded disease of cancer has produced unforeseen and unwanted results. Our generation has witnessed the formation of a sort of mass hysteria, a mighty public phobia, as the result of this most fervent endeavor.

I shall even venture to state that my physician colleagues have felt the impact of this overemphasis. For thousands of patients have become so cancer conscious that they dwell in utter fear of this disease. They have read, heard, and viewed the involvements of this human affliction from every conceivable source

—Continued on page 42a

4 out of 5 former fatties...

gain it right back!

the *Am Plus*® **post-diet plan**

for the 80%
who fail to sustain
weight loss
*after the diet**

*Aaron, H.: *Weight Control*, Consumer Reports 17:100 (Feb.) 1952.

Just one AM PLUS capsule daily, taken when hunger becomes excessive: before the day's "big" meal, before a club lunch or dinner, at snack time. The patient decides when.

A unique combination of dextro-amphetamine plus the original formula of 19 important vitamins and minerals, AM PLUS rehabilitates post-dieting habits while it augments nutritional intake.

536 Lake Shore Drive, Chicago 11, Illinois

Ronnic Rx

LETTERS TO THE EDITOR

—Continued from page 40a

of propaganda. One can go so far as to claim the public has become oversensitized to the cancer propaganda.

The people have been over-informed about all the lurid aspects of cancer. Newsmen and the radio executives have discovered this topic makes very good copy. And they have "schmaltzed" it to the hilt.

The scourge of cancer must be eradicated from mankind! Examine your own armpits to discover breast cancer! Examine your own stools! If you find blood in them—beware! Learn the signs of cancer! Save lives, perhaps your own—fight cancer! Give to the cancer fund until it hurts!—All this and much more! No wonder the populace has become nearly berserk on the subject. The people have begun to eat, breathe, and sleep on the topic of cancer. This disease has become such an item of discussion that it is mentioned routinely during the course of any five minutes' conversation between any two individuals, particularly women.

This cancer crusade appeared, during its beginning, to be a valuable endeavor. But it has grown out of hand. This great example of mass education has turned into mass hysteria. This cancer educational campaign has produced actual cancer phobia in many people. The fight has turned into a rout! And now the throngs are attempting to flee from the mental cancer scourge.

Can one say that this cancer crusade has been successful? Perhaps many people have become very conscious of the presence of cancer. Thousands of operations have resulted in the attempt

—Concluded on page 62a

in serious infections

Chloromycetin®

(Chloramphenicol, Parke-Davis)

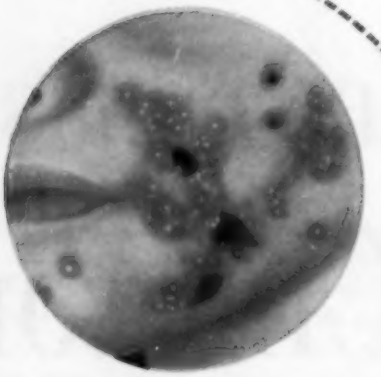
in bacterial infections, CHLOROMYCETIN is frequently effective against strains of gram-positive and gram-negative organisms resistant to other antibiotic agents. Notable clinical results have been observed in typhoid fever, bacterial pneumonia, and serious bacterial disorders.

in viral infections, marked clinical improvement, smooth convalescence, and an early return to normal activities may be anticipated following the administration of CHLOROMYCETIN. Striking clinical responses have been reported in viral pneumonia, psittacosis, and certain other serious conditions caused by large viruses.

in rickettsial infections, CHLOROMYCETIN often has a remarkable effect on the clinical course of the disease. Fever and toxemia associated with typhus, scrub typhus, and Rocky Mountain spotted fever may be dramatically controlled within 48 hours.

CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

PARKE, DAVIS & COMPANY DETROIT 32, MICHIGAN



announcing

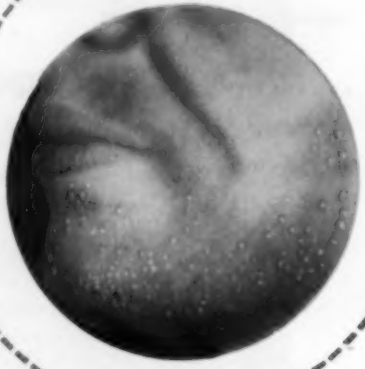
antibacterial–antifungal

STEROSAN®

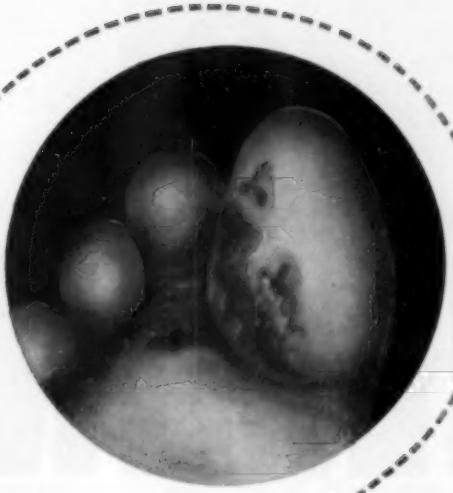
(brand of chlorquinaldol)

for control of superficial skin infections

STEROSAN (5,7-dichloro-8-hydroxyquinaldine) distinctive iodine-free oxyquinoline derivative—development of original research. Indicated for the treatment of bacterial and mycotic skin disorders, including: Dermatophytosis, Folliculitis, Impetigo, Sycosis and other Infectious Dermatitides.



STEROSAN...



effective

"Sterosan is effective not only against staphylococci but also against streptococci and enterococci."[3] "...shows extraordinarily potent antibacterial and antifungal action."[15]

distinctive

chemotherapeutic agent, unrelated to the antibiotics, sulfas or adrenocorticoids. No bacterial resistance, cross-sensitization or drug tolerance noted. STEROSAN retains full activity..."even when the bacteria count is high and in the presence of decomposition products of human proteins."[15]

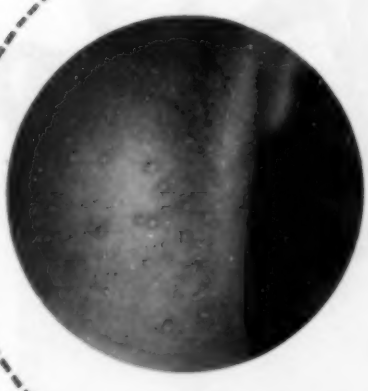
pleasing

to use, light color, agreeable odor, stable, non-bleaching, virtually non-staining. "No pigmentary changes were noted following its use on the skin...Simple tests upon linens, clothing, etc., do not indicate any harmful effects."[17]

well tolerated

over large body surfaces, for prolonged periods, with minimal irritation or sensitization. "In all cases, patch tests were performed... there were no positive reactions."[12]

STEROSAN® (brand of chlorquinaldol) Ointment and Cream, in 30 Gm. tubes. Prescription required.



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GEIGY PHARMACEUTICALS
Division of Geigy Chemical Corporation
220 Church Street, New York 13, N.Y.
In Canada: Geigy Pharmaceuticals, Montreal

FOR TREATMENT AND MAINTENANCE IN ANEMIA PATIENTS

PERIHEMIN, master builder of red cells and hemoglobin, contains *all* the known hemopoietic essentials indicated for the majority of your anemic patients.

The intrinsic factor, in purified, concentrated form enhances absorption of Vitamin B_{12}, thus promoting rapid hematological improvement.

CAPSULES: Bottles of 100, 500 and 1,000
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NOW CONTAINS PURIFIED INTRINSIC FACTOR CONCENTRATE

PERIHEMIN*

IRON • B_{12} • C • FOLIC ACID • STOMACH • LIVER FRACTION • PURIFIED INTRINSIC FACTOR CONCENTRATE

LEDERLE

Lederle

*REG. U. S. PAT. OFF.

LEDERLE LABORATORIES DIVISION
AMERICAN Cyanamid COMPANY
PEARL RIVER, NEW YORK

For every woman presenting classic menopausal **hot flushes,** there is another who exhibits symptoms which are equally distressing but less clearly defined. For example, insomnia, easy fatigability, **headaches** may also be symptoms of declining ovarian function, but frequently are not so recognized because they occur long before and even years after menstruation ceases. When such is the case, the patient may be expected to **respond** to estrogen therapy. **"Premarin"** (complete equine estrogen-complex) produces not only prompt symptomatic relief but also imparts a gratifying **"sense of well-being."** It has no odor . . . imparts no odor. "Premarin"® estrogenic substances (water-soluble), also known as conjugated estrogens (equine), is supplied in tablet and liquid form.

MODERN MEDICINALS

These brief resumes of essential information on the newer medicinals, which are not yet listed in the various reference books, can be pasted on file cards and a record kept. This file can be kept by the physician for ready reference.

Antirabies Serum, Lederle Laboratories, Pearl River, N. Y. A refined and concentrated serum derived from hyperimmunized horses, recommended as an adjunct to Rabies Vaccine in the prophylactic treatment of all individuals who have been exposed to rabies infection. Affording rapid antibody response, Antirabies Serum offers an extra margin of safety in rabies proplylaxis and will be especially welcome in the treatment of patients who have been bitten about the head and neck. **Dose:** As determined by physicians. **Sup:** In 1,000 unit vials.

ASF, J. B. Roerig & Co., Chicago 11, Ill. Each capsule contains: Thiamine monoitrate 10 mg., riboflavin 10 mg., niacinamide 100 mg., pyridoxine hydrochloride 2 mg., calcium pantothenate 20 mg., ascorbic acid 300 mg., vitamin B-12 activity 4 mg., folic acid 1.5 mg., and menadione (vitamin K analog) 2 mg. An anti-stress formula. **Dose:** 2 capsules daily in acute stress situations, such as operative procedures and severe pathologic conditions, 1 daily for maintenance in convalescence. **Sup:** In bottles of 30 and 100.

Atropine Sulfate Injection, George A. Breon & Co., New York 18, N. Y. Contains atropine sulfate 0.432 mg. per cc. in a buffered, isotonic, aqueous solution with sodium bisculfite 0.1% and benzyl alcohol 1.5% as preservatives. For subcutaneous or intramuscular use. **Dose:** As determined by physician. **Sup:** In 30 cc. multidose vials.

Beta-Methischol Syrup, U. S. Vitamin Corp., New York 17, N. Y. Syrup, each fluid ounce containing betaine monohydrate 3.5 Gm., tricholine citrate 1.40 Gm., dl-methionine 0.24 Gm., inositol 0.50 Gm., vitamin B_{12} 24 mcg., and liver concentrate 0.80 Gm. For therapy in reparable liver damage, in obesity, hypertension, alcoholism, atherosclerosis, coronary occlusion, and hypercholesterolemia. **Dose:** 2 or 3 tablespoonfuls or more daily, in divided doses with meals. **Sup:** In 16 oz. and gallon bottles.

Bifran, Maltbie Laboratories, Inc., Newark 2, N. J. Indicated in the management of obesity. Acts to normalize biliary function while allaying the sensation of hunger. It also helps to overcome manifestations of sleeplessness and hyperactivity. **Dose:** As indicated by physician. **Sup:** In

—Concluded on page 56a

the only

Therapeutic Formula

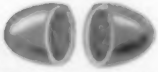
multivitamin tablet

this Small . . . . . .

this Potent . . . . . .

Vitamin A	25,000 U.S.P. units (synthetic)
Vitamin D	1000 U.S.P. units
Thiamine Mononitrate	10 mg.
Riboflavin	5 mg.
Nicotinamide	150 mg.
Vitamin B_{12}	6 mcg.
Ascorbic Acid	150 mg.

this Pleasing . . . . . .



A solid tablet: no fish-oil taste, odor, burp or allergies.

OPTILETS

(Abbott's Therapeutic Formula Multivitamins)

Abbott

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If you could "take apart" a droplet of *KONDREMUL* mineral oil emulsion...

...you would find it *different because*

each microscopic oil globule is encased in a tough, indigestible film of Irish moss for perfect emulsification and complete mixing with the stool.

KONDREMUL® PLAIN

COLLOIDAL EMULSION OF MINERAL OIL AND IRISH MOSS

for chronic constipation

KONDREMUL *Plain*—containing 55% mineral oil, bottles of 1 pt.

Also available: KONDREMUL *With Cascara* (0.66 Gm. per tablespoon), bottles of 14 fl. oz., KONDREMUL *With Phenolphthalein* (0.13 Gm. per tablespoon), bottles of 1 pt.

highly penetrant... highly demulcent... highly palatable—no danger of oil leakage or interference with absorption of nutrients when taken as directed

THE E. L. PATCH COMPANY
STONEHAM, MASSACHUSETTS

it takes more than spasmolysis to relieve functional G. I. distress

Decholin/Belladonna

prescribe these **double benefits**

reliable spasmolysis
inhibits smooth-muscle spasm...
suppresses incoordinate peristalsis...
facilitates biliary and pancreatic drainage

improved liver function
increases bile flow and fluidity through *hydro*choleresis...
enhances blood supply to liver...
provides mild, natural laxation—without catharsis.

DECHOLIN® with Belladonna

for prompt, more effective relief of belching, bloating, flatulence, nausea, indigestion and constipation

Dosage: One or, if necessary, two *Decholin*/Belladonna Tablets three times daily.

Composition: Each tablet of *Decholin*/Belladonna contains *Decholin* (dehydrocholic acid, *Ames*) 3¾ gr., and ext. of belladonna, ⅙ gr. (equivalent to tincture of belladonna, 7 minims). Bottles of 100.

AMES COMPANY, INC.

ELKHART, INDIANA

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"...the only preparation known to have this type of action"

Shaftel* found that Caroid® and Bile Salts Tablets have a *quantitatively greater* and *qualitatively superior* laxative action than cascara sagrada or phenolphthalein alone or in simple combination. The number of stools was increased, and they were of a highly desirable, easily-passed consistency... a distinctive action particularly important in the treatment of biliary constipation.

The laxative—choleretic—digestant combination produced fewer side-effects; patients reported a sense of adequacy of assistance and definite "feeling of well-being."

Write for a reprint of this significant new study, and professional samples.

CAROID AND BILE SALTS *tablets*

Specifically indicated in biliary dyspepsia and constipation

AMERICAN FERMENT COMPANY, INC.
1450 Broadway, New York 18, N. Y.

*Shaftel, H. E.: J. Am. Geriatrics Soc. 1:549 (Aug.) 1953.

Caroid, T. M. Reg. U. S. Pat. Off.

Biochemical PROOF

of higher calcium levels with Calcisalin®

the new prenatal supplement

In a recent clinical test* which included biochemical determinations of ionic calcium, four groups of pregnant patients were studied. Here are the results after a four-week period, compared with the initial serological values.

PER CENT CHANGE IN CALCULATED IONIC CALCIUM

GROUP	CHANGE
Control. No medication	Minus 6.0%
No neuromuscular symptoms. Medication, CALCISALIN	PLUS 12.5%
Neuromuscular symptoms. Medication, dicalcium phosphate supplement	Minus 0.9%
Neuromuscular symptoms. Medication, CALCISALIN	PLUS 18.0%

*From *Calcium Metabolism in Pregnancy*, Gross, Wager and Loving, Bulletin Margaret Hague Maternity Hospital, Dec. 1953.

To help you make your own evaluation of CALCISALIN we will send samples and literature on request.

The HARROWER Laboratory INC.

930 Newark Avenue, Jersey City 6, N. J.

FACTS...

ABOUT CALCIUM AND PHOSPHORUS IN PRENATAL DIETARY SUPPLEMENTS

- Pregnancy depletes calcium, and the principal purpose of a prenatal supplement is to replenish calcium in the maternal pool.
- There is an antipathy between calcium and phosphorus which causes depression of calcium levels when phosphorus is administered *with* calcium.
- Most prenatal supplements, excepting Calcisalin, use dicalcium *phosphate* as a calcium source.
- Calcisalin omits phosphorus through the use of calcium *lactate*, and also includes aluminum hydroxide gel to take up excess *dietary* phosphorus.
- The proven result is that Calcisalin builds ionic calcium more effectively than supplements which employ a phosphorus component.
- The medical literature points more and more strongly toward calcium *lactate* as the calcium salt of choice in prenatal nutrition. In Calcisalin, calcium lactate and aluminum hydroxide gel are combined with iron and required vitamins.

specific

NOT "SHOTGUN" THERAPY

in diaper dermatoses

Diaparene®
CHLORIDE

FITS YOUR TREATMENT TO THE CAUSE

FECAL IRRITATION

Diaparene PERI-ANAL

FOR: Peri-Anal Dermatitis

CRITERIA: Inflammation centered around the anus from 3 to 4 cms. in diameter and frequent stools.

CAUSE: Transitional stools in the newborn, diarrhea or following oral antibiotics.[1]

MODE OF ACTION: Provides a skin coating with a competitive protein substrate, plus anti-enzymatic and antibacterial action in a water-repellent, cod-liver-oil base.[2,3]

URINE IRRITATION

Diaparene OINTMENT

FOR: Ammonia Dermatitis

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MODE OF ACTION: Prevents ammonia formation in voided urine with an antibacterial in a water-miscible base[4,5] . . . adjuvant therapy to routine Diaparene Rinse impregnation of diapers.[7,6]

1. Manheim, S. D., et al: "Further Observations on Anorectal Complications Following Aureomycin, Terramycin and Chloromycetin Therapy." N. Y. State Jrnl. Med., 54:37-1, Jan., 1954.
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6. Benson, R. A., et al: Jrnl. Ped., 31:369, Oct., 1947.
7. Ibid: Jrnl. Ped., 34:49, Jan., 1949.

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—Concluded from page 48a

bottles of 100, 500, and 5,000 tablets.

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Reserpoid, Compressed Tablets, Scored, The Upjohn Co., Kalamazoo, Mich. A pure crystalline alkaloid (reserpine) obtained from the roots of Rauwolfia serpentina. Each tablet contains Reserpine, 0.1 or 0.25 mg. Used in treatment of patients with mild to moderate essential hypertension. In menopausal patients with coexistent hypertension or distressing emotional disturbances not adequately controlled by estrogens, Reserpoid is a useful adjuvant. **Dose:** Given orally and varies with severity of case. As determined by physician. **Sup:** 0.1 mg. in bottles of 100 and 500, 0.25 mg. in bottles of 100 and 500.

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The symptomatology noted in the male varies widely and apparently causes no serious residual lesions. According to Lancely[1] in his investigation, the infection can even exist in an asymptomatic state. Meigs[3] reports that the infection in the male is usually self-curative, and within a month the trichomonads "usually disappear."

This observed absence of symptomatology is all the more remarkable when contrasted with the harassing and tormenting manifestations almost invariably reported by infected females.[1-5]

Crossen,[2] in his instructive study and investigation of the persistent and therapy-resistant cases of trichomonal vaginitis, reports numerous avenues of re-infection, listing among others—douche nozzles, fingers, and the sexual partner. He emphasizes the importance of checking the husband as a possible focus of re-infection. Reich and Nechtow[5] similarly advocate such a procedure, stating, "The male, too, may be a source of re-infection. The prostate should be checked as a possible source of trichomonads." Wharton[4] notes "... the infection returns after coitus..." and again, "Occasionally the husband is the reinfecting focus." Lancely,[1] in his extensive study, observes that infection and re-infection by coitus "is not uncommon."[1]

Increasingly, data and studies[1-5] point up the need for prophylactic measures in coitus, as an effective adjunct to routine trichomonal therapy of the female. The importance and rationale for the use of a condom as a preventative of re-infection should be explained carefully. At the same time, both partners can be oriented as to the necessity for repeated laboratory examinations to establish the absence of trichomonal infestation.

Because of the self-limiting, transient nature of the infection in the male,[1,3] a thirty-day regimen with the husband employing a condom is a rational adjunct to direct therapy.

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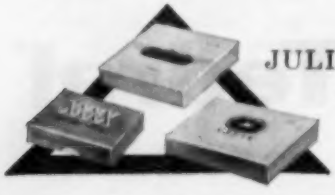
references:

1. Lancely, P.: Brit. J. Ven. Dis. 29:213-217, Dec., 1953; abstracted, J.A.M.A. 154:1467, Apr. 24, 1954. 2. Crossen, R. J.: Diseases of Women, ed. 10, St. Louis, C. V. Mosby Company, 1953, p. 294. 3. Meigs, J. V., and Sturgis, S. H.: Progress in Gynecology, vol. 2, New York, Grune and Stratton, Inc., 1950, p. 433. 4. Wharton, L. R.: Gynecology, Including Female Urology, ed. 2, Philadelphia, W. B. Saunders Company, 1947, pp. 446, 448. 5. Reich, W. J., and Nechtow, M. J.: Practical Gynecology, Philadelphia, W. B. Lippincott Company, 1950, pp. 262, 267.



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1. Reich, C., and Mulinos, M. G., Treatment of Refractory Nutritional Anemia with Gelatine. Bull. N. Y. Med. Coll. March 1953.

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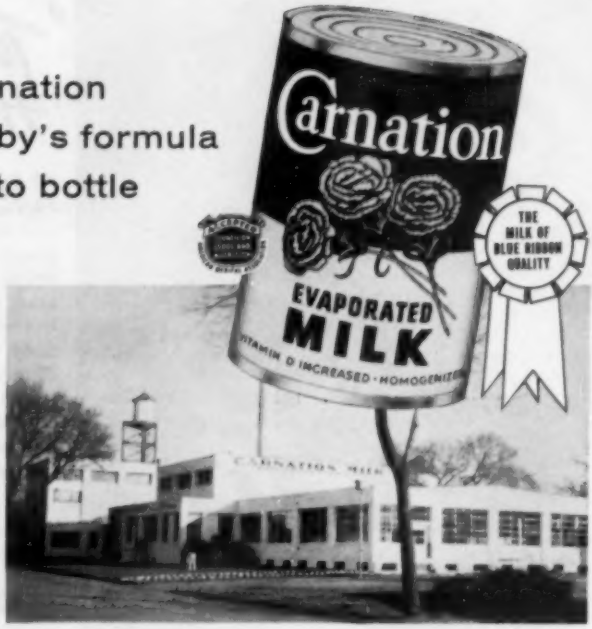

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LETTERS TO THE EDITOR

—Concluded from page 42a

to control the spread of this dreaded disease. It appears that definite conclusions at this time are unjustifiable as to whether or not surgery has been able to control cancer adequately. And the same goes for the use of x-ray therapy, radium, and other weapons which have been employed to fight cancer.

But, above all, exactly what has been and can be done to fight this mass cancer phobia which has become nascent as the result of the cancer educational program? And which is worse, the discovery of actual cancer or a continual living horror of this disease? I am unable to give the answer. But as a physician, I will say many aspects of cancer have been grossly over-emphasized. So far as I can judge, many other diseases are much worse. But these diseases do not share the present public limelight. Bright will be the person or persons who come forth with all the proper answers. Perhaps much wisdom can be found in the words of Milton, who wrote:

"Accuse not Nature;
She hath done her part.
Do Thou but Thine!"

WALLACE MARSHALL, M.D.
Two Rivers, Wisconsin

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*Choy, D.S.J. Clinical trials of a new plastic dressing for burns and surgical wounds. A.M.A. Arch. Surg. 68:33-43 (Jan.) 1954.

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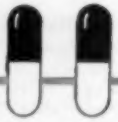

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Schaerrer, W. C., J. Missouri M. A., 37:287.

907182

Passenger and Pilot Ear Problems in Aircraft Flight

M. MARTYN KAFKA, M.D., F.I.C.S.
Forest Hills, N. Y.

It appears the general practitioner now will have to learn more about aviation physiology and pathology. With air travel becoming commonplace for both the young and the aged the physician will be more frequently summoned by an air traveler to examine him for one malady or another. The most common discomfort the air passenger will complain about will be ear trouble. At times the middle ear pain may be very alarming to the individual and it might necessitate prompt diagnosis and treatment. While it is true the attending doctor who does general practice may have a fair knowledge of ear function on land, does he exactly visualize the problems of the middle ear at various altitudes during rapid flight? I will attempt, therefore, the practical explanation of the origin of middle ear involvements at various altitudes, the diagnosis, treatment and preventive care.

Anatomatically the eustachian tube is shaped like a funnel which links the middle ear with the nasopharynx. Basically, it consists of bony, cartilaginous and fibrous tissue. It is not uniform in its shape as it runs more like an irregular narrow funnel. The body part is widest and starts at the frontal wall of the tympanic cavity. For about 12 mm. it goes gradually downward towards the nasopharynx. It terminates just where the squamous and petrous parts of the temporal bone join. The cartilaginous part of the eustachian tube varies from 22 to 24 mm. in length. It is formed of a plate triangular in shape made up of fibrocartilaginous elastic tissue. It has an apex and a base. The base is placed just under the mucous membrane of the nasopharynx. The apex is attached to the bony part. The prominence forms the torus tubarius. The upper edge of the cartilage is bent slightly laterally and looks like a small hook. The walls of the eustachian tube are more or less completed by fibrous tissue. The eustachian tube has a lumen which is narrowest just at the point where bone and cartilage meet, whereas the isthmus arrives at the widest diameter near the pharyngeal opening. The cartilaginous parts of the eustachian tube have a slit-like appearance and opposing wall surfaces.

The entire eustachian tube is lined with mucous membrane exactly the same as that which covers the nasopharynx and goes backward and upward to cover the middle ear cavity. On the

other hand the bony part of the tube is lined with mucous membrane whereas the cartilaginous portion of the canal is covered with vascular, thick membrane which contains numerous ciliated columnar cells. At times, near the aperture of the eustachian tube may be encountered different quantities of adenoidal tissue often termed tubal tonsil or Gerlock's tonsillar tissues. Incidentally, higher up, on the lateral wall of the nasopharynx the pharyngeal aspect of the eustachian tube is found. This particular orifice is of a triangular shape which is bounded in front by the nasal cavity and behind by the tubarius. There are various muscles which are attached to the eustachian tube which control its action.

From a physiological standpoint, the eustachian tube plays a major role in normal hearing of the individual as the eustachian tube drains the middle ear and also helps its ventilation. The air currents move in the direction of the nasopharynx from the middle ear because of a valvular action of the eustachian tube. There are fine cilia present within the mucous lining of the tube, and because of this control and the motion of the cilia, backward movement within the eustachian tube is prevented. While the tube is normally in a state of patency, by means of yawning or swallowing, the dilator muscles open up the eustachian tube, thereby permitting the difference in air pressure between the middle ear and the atmosphere to be equalized.

The Effect of Variable Altitudes on the Physiology of the Eustachian Tubes Like other parts of the body the eustachian tube is subjected to certain physiologic changes according to the effect of barometric pressure at variable altitudes. Laboratory experiments in low pressure chambers disclosed that a pressure change of from three to five millimeters of mercury, or the equivalent of from 110 to 180 feet altitude, was essential to produce any possible perceptible effect upon an individual when starting at sea level pressure and slowly diminishing it at a constant rate. Examinations conducted on inmates of low pressure chambers indicated that the drum membrane appeared to have somewhat of an increased pressure and thereby produced bulging. When the pressure was decreased in the low pressure chamber to about the equivalence of 500 ft. of altitude (15 mm. of Hg.) there were produced the following:

Rapid and unexpected clicking sensations were experienced and the progressive fullness felt at 450 to 490 feet disappeared. The bulging of the tympanic membrane was no longer visible when the ear was examined with use of an otoscope. At the same time, the eustachian tube which was up to that point closed, was pushed open because of the surcharged pressure in the middle ear cavity. Thus an equalized condition was produced between the tympanic cavity and the nasopharyngeal regions. From this laboratory data it was concluded that 15 mm. of mercury excess pressure was necessary in the middle ear at sea-level conditions to compel the eustachian tube to remain open. And the tube continues to stay open until such a period when the pressure is diminished approximately about 3.5; and when the mercuric pressure is about 3.6 (130 ft. altitude equivalent), is in excess in the middle ear, the eustachian tube then closes again. The results obtained were variable between individ-

uals and in the same person. Variations were found from about 5 to 30 mm. at sea level tests. Nevertheless, there were constant averages throughout the experiments.

In another series of experiments when there was an increase in the atmospheric pressure another picture was produced. In the eustachian tube under such circumstances the valve had a flutter-like power and stayed shut regardless of the amount of pressure employed. Finally the drum membrane ruptured under terrific pressure. Incidentally, while these experiments were being conducted, such voluntary acts as swallowing, chewing or yawning were not permitted. In another group of experiments under similar atmospheric conditions by the voluntary act of chewing, swallowing or yawning the ear pressure was instantly equalized. The exception, however, to this was when a negative pressure of 80 to 90 mm. of mercury upwards was created in the middle ear cavity. No amount of voluntary effort could make the eustachian muscles subdue the negative pressure that held the fibro-cartilaginous part of the tube pinned down. Under these conditions there was only one thing necessary and that was to decrease the atmospheric pressure to such a degree as would make the eustachian tubes perform under voluntary acts of swallowing.

Areo-otitis Since the rapid development of aviation medicine has taken place, many new diseases were also discovered. Since Federal, State, County, Municipal and compensation laws have been passed during the past years, newer aero-diseases will have to be incorporated in these passages; one of the most commonly encountered aviation disabilities will be that of aero-otitis.

Aero-otitis media may be defined as an acute, sometimes chronic, inflammation of the middle ear. Usually, it is of traumatic origin. This condition is produced by a difference of pressure in the middle ear region and that of the atmosphere outside the tympanic membrane. Often, it is created while the aircraft has changed altitudes during flight. Aero-otitis media produces severe pain, extreme, uncomfortable sensations of pressure in the tympanic cavity, noises in one or both ears and deafness of a variable nature. All these symptoms are produced because there is an absence of ventilation in the middle ear during variations in atmospheric pressure. As a result of this condition, the tympanic cavity is injured.

The most common reasons for defective ventilation of the middle ear are: the eustachian tube fails to open voluntarily when the time is ripe and when the individual concerned is unable to open it. Sometimes, conditions arise which are beyond the control of the air passenger or pilot. There may be occasions when an inexperienced flier or passenger may not be aware of the necessity of forcing the tubes open. At times one may be asleep during sudden changes in altitude. Again, anesthetic or analgesic drugs may have created the inability to properly ventilate the middle ears.

Generally, the most common causes of stenosis of the eustachian tube may be produced by obstructions of the nasal passages, acute, sub-acute or chronic sinusitis, acute or chronic tonsillitis or pharyngitis, polypoidal masses in the nasal or pharyngeal areas, upper respiratory infections of acute or chronic

types, acute or chronic tubal infiltrations with infected lymph tissue. Also, acute or chronic middle ear infections which were present before flight in aircraft started. There may be tumors which may produce partial or complete paralysis of the superior pharynegal muscles or the soft palate. Finally, in such conditions where there may be some malocculsion of the jaws due to an old fracture, aero-otitis may be rarely produced.

Most recently, literature has recorded that there are instances of aero-otitis produced by the presence of excess of scar tissues found at the pharyngeal ostium of the eustachian tube. This condition may be the result of carelessness permitting the adenotome to remove too much adenoidal tissue on the lateral side, thus producing injury to the torus tubarius. Moreover, Casten reported in the *Annals of Otology, Rhinology and Laryngology*, March 1934, that persons with edentulous mouths, ill-fitted dental plates, malocclusion, worn out molar teeth, or absence of molars unilaterally or bilaterally, or if there was any other condition present where there was a shortening of the vertical position of the lower jaw, a compression stenosis of the eustachian tube might result from the relaxation of the surrounding soft tissue.

Symptoms of acute aero-otitis media may be subdivided into subjective and objective.

Subjective Symptoms (In moderately early stage)

1. Fullness in the middle-ear may be present.

2. Feeling of fullness in the middle-ear becomes very disturbing and at such a time hearing is diminished and sounds appear distant.

3. In an early advanced aero-otitis, the tympanic cavity discomfort may become unbearable. Subjective ear noises become audible to the passenger. When tinnitus aurium is produced, it usually has either a roaring or gurgling and crackling character.

4. Finally, in an advanced aero-otitis, the middle ear pain becomes excruciatingly worse, making the individual feel as though his ear drums were about to rupture. Under these circumstances, there is an accentuation of the tinnitus aurium.

5. And in the terminal phase of the advanced type of aero-otitis, there may be signs of vertigo, unbearable pain of a severe otitis media, with exaggerated ear noises plus nausea and, at times, severe vomiting spells.

6. Under simulated altitude conditions from 60 to 80 mm. of mercury negative pressure, there may be such an agonizing pain produced in the middle-ear as to signify imminent rupture of the drum; and the radiation of pain from the tympanic area is diffused towards the parotid gland as well as towards the temporal region. At this stage, the sensation of loss of hearing is very marked and accompanying tinnitus is also more intense with an associated advanced vertigo being present.

7. When the reading of the pressure chamber reaches registrations from 100 to 500 mm. of negative mercury pressure, rupture of the ear drum takes place with profuse bleeding. Symptoms of unbearable pain and perhaps collapse may result if the pressure in the chamber is not leveled off to a much lower reading. However, after the ear drum ruptures, the severity of the symptoms rapidly subsides except that there may persist a dull earache with diminished acuity

of hearing and some limited degree of tinnitus aurium. Vertigo and nausea may, however, persist for as many as four to twenty-five hours.

Objective Symptoms

1. In early stages, there are hardly any positive signs, except for a mild bulging of the tympanic membrane, and the light reflex of the drum may not be seen due to some congestion.

2. In advanced aero-otitis media, the above objective signs are more marked with a complete hemorrhagic infiltration into the drum with an added prominence of the short process of the malleus.

3. When a rupture takes place, usually there is no set part which is traumatized. Any part of the tympanic membrance may be involved. The margins of the freshly ruptured drum may be intensely red with the rest of the area of tympanum acutely inflamed. The amount of blood in the external auditory canal is little. After perforation and cleaning, one might be able to see the outer labyrinthean wall which usually under these conditions appears markedly inflamed. Audiometric readings vary under these circumstances, generally depending upon the severity of injury and the extent of inflammatory processes existing following the rupture.

Chronic Type of Aero-otitis Patients have a feeling of stuffiness and heaviness in the middle ear. Also, there is an inability to clear this stuffy feeling by swallowing, chewing or by other methods.

The hearing may be involved on one or both sides. Tinnitus is present without vertigo. Also, pain rarely may be present.

Chronic aero-otitis is aggrevated immediately after flying or during upper respiratory infections, or after long hours of work. Also radical changes in climate may make aero-otitis symptoms worse.

Diagnosis The tympanic membrane has a greyish dull appearance. There is a thickening of the eardrum as well as partial or complete disappearance of the light reflex usually seen with an otoscope. Nasopharyngoscopic examination discloses a thickening at the orifice or a complete obstruction of the eustachian tube.

Subjective findings are as follows:

There may be a decreased acuity of hearing on one or both sides, with usually an increase in bone conduction, with bone conduction being prolonged above normal when 256 double vibration tuning fork is used. Rinne test when performed shows increased bone conduction and decreased air conduction. When a 256 D.V. fork is placed with the hilt on the skull of patient, he hears it very well but usually is not lateralized to any one particular side. There may be exceptions to this rule—namely, the worse ear may hear the sound of the tuning fork.

It is always important to take a history from the patient when chronic aero-otitis is suspected. When a patient states he has done much flying and has had numerous ear attacks of an acute type, it is safe to suspect he is suffering from chronic aero-otitis media.

There is always a possibility that complications in the middle and internal ear may take place if the flier persists in acrobatic flying with the chronic aero-otitis during bad weather.

Preventive Treatment It is good to periodically examine the ears regularly of those who pilot planes for a livelihood. The most important exam-

ination is that of the eustachian tube, to observe whether there is a patency. The Politzer bag can be used most readily for such a test. If an obstruction to the eustachian tubes is found, it is essential to take steps for removal of the causes. Hence in stenosis of the eustachian tube prompt investigation should be made as to whether there are foci of infection present or whether the tonsils or sinuses must be treated, etc. Any nasal obstruction should be corrected. It is always best to conduct a reexamination whenever there is a condition of an acute upper respiratory condition present.

Prophylaxis Any person who flies may be trained to be comfortable during an ascent or descent in altitude during a flight. It is easy if you know how. The simplest method in regulating the normal eustachian tube is to learn to swallow during the descent or ascent. Other methods may be used as singing, shouting, yawning or auto-inflation.

Physiologists inform us that generally involuntary swallowing may occur at intervals normally from once per minute or minute and one quarter. Therefore, when the aeroplane must ascend to higher altitudes at a rate of about 200 feet per minute, no untoward symptoms can occur. However, if there is a rate of climb of from 500 feet or over, there will be some mild ear symptoms present without swallowing or auto-inflation. An ascent or descent of above 1000 feet per minute may create moderate ear discomfort. But, when the rate of descent is about 4000 feet per minute there will be excruciating ear pains. At times these sensations may be so unbearable as to cause prompt ascent to a higher altitude.

It is interesting, therefore, to note that chewing, drinking or inhalation of oxygen may decrease the swallowing reflex intervals to an average of 30 seconds. Sleeping or sick passengers who experience coma in flight, or air passengers who swallow at increased longer intervals, present therefore, a dangerous situation as regards middle ear ventilation.

In commercial aviation the hostess awakens the passenger when radical changes are made by the aircraft in ascent or descent. Hence, to insure the comfort of air passengers, commercial planes usually never exceed the rate of ascent or descent of 300 feet per minute. There are other companies that limit the rate of climb or descent to 200 feet per minute. There are periods during flight when weather conditions are such as to demand a radical change of such rates of ascent or descent as set down by the officials. Under such circumstances the comfort of passengers must be sacrificed for the safety of the aircraft. The pilots then use their own descretion.

When it is *most essential* that fliers or air passengers must fly with a mild upper respiratory infection, a hot gargle of saline may be helpful in decreasing the severity of the inflammatory process just prior to making the flight. Also ephedrine 2% aqueous solution nasal spray or benzedrine inhalation may be useful temporarily in producing a little comfort in prolonged flights. Although my policy is to ground any individual who has an acute upper respiratory infection.

Treatment Catheterization of the eustachian tube for pain is most essential. This can be accomplished by the employment of Politzer's bag—done carefully in instances where tympanic

signs show increased negative or positive pressure.

Physiotherapy as heat in any form may be employed.

Irrigations in the external auditory canal at temperatures of from 110 to 115° F may be used. This is to be followed by dry heat. When congestion of the eustachian tube is present, nasal astringents as well as hot saline gargles are beneficial. To control further pain and nervousness—barbituates or even 1/6 to 1/4 grain of morphine sulfate may be indicated after flight.

There are certain times when the condition may subside, but the above local treatments may be advised continued. Complications such as middle ear infections, mastoiditis and complete stenosis of the eustachian tube may occur. In case of a rupture of the drum following a flight, it is best to allow the drum to heal without any interference. All areas of foci of infection should be removed and any nasal obstruction should be corrected if persistent middle ear disease continues.

Pathological findings in acute aerotitis are as follows:

Passive hyperemia is found in the mucous membrane of the middle ear and eustachian tube caused by negative pressure. There may be an ischemia produced from a positive pressure. When the pressure is relieved in either case there remains an acute hyperemia and will last according to the degree and severity of the injury which produced it. When the pressure is high, there may be created a serous exudate and the mucous membrane may become swollen and the tympanic cavity may be blocked. The epidermal layer of the eardrum may be ruptured as a result of the inflammatory process.

Summary

When modern commercial aircraft was pressurized it helped to reduce the occurrence of aerotitis. Fighter aircraft as well as jet planes descend so fast that the ears must be constantly ventilated in order to prevent the obstruction of the eustachian tube orifice. Aerotitis media occurs more often at lower altitudes; and a given change in altitude involves increasing differences in pressure as one descends towards sea level. In most instances of acute aerotitis media symptoms are mild, pain diminishes early, and either no treatment or a minimum of conservative treatment may be essential. In the very severe types the abatement of pain is most important. Early treatment assures better results. The most ideal manner of relief, where possible, is to have the aircraft reascend to the level at which greater aeration is possible, which can then be followed by slower descent. Where this is not possible it is better to use vasoconstrictor medication followed by catherization. When the pain is very severe it is best to use sedation for about twenty-four hours or so. Sometimes when the pain is very severe narcotic medication may be employed.

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Toxemia of Pregnancy

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Toxemia of pregnancy (preeclampsia and eclampsia) may be considered an acute vascular disorder. It is characterized by the appearance in the latter half of pregnancy of:—

1. an abnormal elevation of blood pressure above the prepregnant level (regardless of the presence or absence of hypertensive disease before the onset of pregnancy) *or*

2. an increase in the degree of albuminuria above the prepregnancy level in the absence of other obvious cause, and

3. generalized edema in association with the foregoing changes in the majority of instances and

4. a rapid diminution of these abnormalities before or soon after delivery.

Symptoms may or may not be present.

Whether the toxemia is manifested as preeclampsia or eclampsia, the difference is merely one of degree. The term eclampsia is reserved for those cases in which convulsions or coma occur.

Etiology The etiology of toxemia is unknown. Much work has been done on this problem and many theories proposed. No one explanation has been found entirely satisfactory. Briefly outlined, current theories of note are:—

1. that which holds that there is either an overproduction of, or a failure to inactivate the anti-diuretic hormone of the posterior Pituitary. (Page; Michel; Dieckmann; Kustner; Fekete).

2. the theory of Smith and Smith which proposes that a toxic product, resulting from placental degeneration, circulates and causes vascular spasm.

3. lastly, the theory of Schneider which implicates intravascular coagulation due to a release of thromboplastin from the placenta as a cause of the manifestation of eclampsia.

Criteria For Diagnosis of Toxemia of Pregnancy Patients with hypertension in pregnancy may be divided into two main groups. The first consists of those with prepregnant hypertension uninfluenced by pregnancy; the second consists of those with the hypertensive syndrome commonly called toxemia, which may appear in patients

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whose blood pressure before pregnancy has been either normal or elevated.

This differentiation is best justified by considering four possible courses an individual may follow on becoming pregnant—

1. Women with normal B.p. usually go through pregnancy with but slight change in B.p.

2. Individuals with normal prepregnancy B.p. may develop an elevation of B.p. and/or albuminuria during the second half of pregnancy. These often return to normal after delivery. This vascular disorder has generally been called toxemia.

3. Patients with prepregnant hypertension may, like those in group 1, go through pregnancy with no essential changes in B.p., urinary albumin or symptoms. This group is considered to have chronic hypertensive vascular disease in which pregnancy is an incident with no observable influence. This is "hypertension uninfluenced by pregnancy."

4. Patients with prepregnant hypertension may develop like those in Group 2, further elevation of B.p., increase in albuminuria, and associated symptoms and signs takes place. This group is considered to have toxemia superimposed on prepregnant hypertension.

Elevation of B.p. and albuminuria do not, therefore, necessarily indicate that toxemia is present. A significant increase above preexisting levels in the second half of pregnancy is the basic characteristic.

Determination of the presence or absence of hypertensive disease in the pregnant, as well as in the non-pregnant woman, is almost impossible in borderline cases. It is not rare for the B.p. to fall, particularly during the second trimester of pregnancy. Should previous hypertension be mild, normal values may be obtained. Although it is infrequent to encounter normotension in a hypertensive patient during pregnancy, it may occur and makes evaluation of B.p. during gestation difficult. The desirability of obtaining B.p. and urinalyses before, during the first half, and during the second half of pregnancy, is apparent.

Rare types of hypertension that happen to have their onset during pregnancy such as those due to acute glomerulonephritis, pyelonephritis, periarteritis nodosa, cortical necrosis of the kidney, and the like represent a small and special group and will not be discussed here.

Factors Predisposing to the Development of Toxemia One of the most important factors predisposing to the development of toxemia is hypertensive vascular disease of any cause or any degree of severity. In a series studied by Dexter and Weiss, toxemia developed in approximately one half of those with hypertension before pregnancy.

Another important predisposing cause is generalized edema. This may be seen in about 75% of all otherwise normal pregnant women and is therefore, usually unaccompanied by toxemia. However, the onset of toxemia is nearly always characterized by development of such edema or accentuation of that already existing.

Less important factors predisposing to toxemia are primiparity, diabetes, twin pregnancies, and hydatidiform mole.

Signs and Symptoms Toxemia is peculiar to the second half of pregnancy,

the average time of onset being at the thirty fourth week. The onset may be slow, rapid, or fulminating. Rapid onset is almost uniformly associated with a rapid gain in weight from water retention. Fulminating cases may terminate in coma and convulsions in a few days.

The symptoms appear to result from a combination of fluid retention and hypertension. In the absence of either one, symptoms are uncommon or mild. When both are present however, cerebral symptoms frequently appear. These consist of frontal headaches; scotomas, blurred vision and blindness; nausea, vomiting, abdominal pain, lassitude, drowsiness, twitching, coma, convulsions and a variety of bizarre neurologic manifestations.

Preeclampsia Asymptomatic	EDEMA	HYPERTENSION	PROTEINURIA	
	CEREBRAL	VISUAL	G.I.	Renal
Preclampsia Symptomatic	Headaches Vertigo Tinnitus Drowsiness Amnesia Change in Resp. Rate Tachycardia Fever	Diplopia Scotoma Blurred Vision Amaurosis	Nausea Vomiting Epigastric pain Jaundice	Oliguria Anuria Hematuria
Eclampsia	Convulsions Coma			

Physical examination of the patient with toxemia usually reveals a puffy face and hands as well as dependent edema. There is a striking absence of serous effusions unless cardiac failure supervenes. The eye-grounds are usually normal, although in the more advanced stages of the disease there may be spasm of the arterioles, papilledema, retinal detachments, hemorrhages and exudates. The heart is usually normal when toxemia is mild, but severe toxemia with pronounced generalized edema is frequently associated with manifestations of cardiac insufficiency. The liver is not enlarged as a result of toxemia. When palpable, it indicates independent disease or cardiac failure.

Course The course is variable. Spontaneously or as a result of therapy, the process may subside completely and remain absent during the rest of pregnancy. In some cases, there may be only partial improvement, no improvement, or the condition may grow worse. When it progresses, the B.p. tends to rise, albuminuria increases, and the edema of the hands and face becomes noticeable. The B.p in those without prepregnant hypertension rarely exceeds 200 mm. Hg. systolic and 120 mm. Hg. diastolic before the stage of coma and convulsions appears.

As the symptoms progress, the mental processes of the patient become clouded, and stupor, coma and convulsions ensue. The occurrence of coma usually carries a worse prognosis than that of

convulsions.

At the convulsive and comatose state, there is classically extreme oliguria or anuria. B.p. is usually high and fluctuates from minute to minute, although it may remain normal or relatively low. The urine usually boils solid with albumin, although albuminuria like hypertension is not invariably present.

The clinical picture in the advanced stages varies. Symptoms are produced by a combination of factors which may include water intoxication, hypertensive encephalopathy, cardiac failure, pulmonary edema, cerebral edema, renal insufficiency, dehydration, acidosis, and circulatory collapse, any or all of which may cause death.

Laboratory Studies Observations have indicated that capillary and venous pressure, circulation time, BMR, and liver function tests are essentially the same in pre-eclampsia as in normal pregnancy. Capillary permeability to proteins was found to be normal. There are essentially, normal values for NPN, BUN, CO_2 combining power, chlorides, sodium, blood sugar and blood clacium. Blood uric acid is frequently elevated in the mild and almost always in the severe cases. In eclampsia, striking changes in blood chemistry may occur, but this might be expected in a state which is nearly terminal. While the plasma proteins are usually lower in toxemia than in normal pregnancy, this is an inconstant finding even in the presence of pronounced generalized edema.

The significance of albumin in the urine has been emphasized. Addis counts reveal a slight increase in the number of RBC, WBC and casts of all sorts. Microscopic hematuria in the usual centrifuged specimen is rare except in cases of eclampsia. Casts are common. Pyelonephritis is an uncommon finding.

Renal function as indicated by the urea clearance test at times shows a depression of function in the acute stages of severe toxemia but this is not a constant finding. During the acute phase of toxemia the renal blood flow is normal and the glomerular filtration is decreased.

Subsidence Either spontaneously or in response to therapy, improvement may occur ante-partum as evidenced by a fall in B.p., decrease in albuminuria, partial or complete loss of edema, and disappearance of symptoms. The control of the process before delivery is in most cases dependent upon the control of fluid retention. If edema cannot be eliminated improvement, as a rule, does not occur.

After delivery, changes take place in rapid succession, but improvement may be delayed for 12 to 24 hours, or more. Approximately 25% of all cases of eclampsia occur post-partum, usually within 24 hours of delivery before any change in B.p., albuminuria, and fluid retention has had a chance to occur.

Well marked diuresis usually starts within 12 to 36 hours after delivery. The diuresis may be rapid and complete within a few days or it may be slow over the course of 2 or 3 weeks.

Following delivery the B.p. is variable. It usually falls rapidly in part, at least, due to the trauma of delivery. A similar temporary fall often occurs in patients with hypertension uninfluenced by pregnancy. In the latter group the B.p. returns in a few days or weeks to approximately the same level that existed before pregnancy. In the toxemic group in certain instances, the B.p. may not return to the prepregnancy level for

several weeks or months. In some cases it remains permanently at a higher level.

Albuminuria decreases at a variable rate after delivery. It may disappear within a few days; it may gradually decrease over the course of several weeks; or it may persist permanently.

Comparison of the Prepregnant Hypertensive and Normotensive There are similarities and some slight differences in toxemia as seen in the patient with normal B.p. prior to pregnancy and the patient with prepregnant hypertension who develops a superimposed toxemia.

Toxemia is the same in the two groups in the following ways:—

1. Severity of the process
2. Time of onset
3. Symptomatology

Toxemia differs in the two groups as follows:—

1. Incidence is higher in the group with prepregnant hypertension (50%) than in the group without (± 2%).
2. Fetal mortality is greater in the group with prepregnant hypertension.
3. There is a greater tendency to cardiac decompensation, renal insufficiency, and more severe retinal lesions in the group with prepregnant hypertension.
4. The amount of generalized edema is somewhat greater in the previously normotensive group, although many individual exceptions are noted.

Pathology of Eclampsia The pathologic changes associated with eclampsia are well known, rather characteristic, but not pathognomonic. The changes in the placenta, liver, and kidneys appear to be the most important.

Placenta—The characteristic changes in the placenta in toxemia consist of premature aging of the organ, as manifested by syncytial degeneration. Normally syncytial degeneration affects from 10-50% of the small terminal villi at term and is virtually absent in placentas at seven and eight monthis. In severe toxemias all of the small villi of the placenta at term may be affected and about 50% of the villi are involved in placentas at seven and eight months. The syncytial changes consist of clumping and autolysis of the nuclei resulting in masses of darkly stained chromatin material without cellular outlines. Later these masses disappear leaving the villi surrounded by a thin layer of hyalin material. In addition to this change, the villi show marked congestion of the stromal vessels.

Liver—The liver is normal or somewhat below normal in size and weight. The consistency is softer than normal, both on external and on cut surface. The hepatic parenchyma is of a pale brown color intermingled with irregular areas of degeneration, necrosis, and hemorrhage. The degenerative, necrotic, and hemorrhage areas vary in size from scarcely detectable to that involving the entire liver. In organs that are minimally involved, these areas may be detected as portal in distribution. In organs extensively involved, such a predilection is no longer recognizable. In addition to the hepatic changes, thrombus formation in the portal veins may be readily apparent. Microscopically, generally but not always, initial degenerative changes are seen in the hepatic cells surrounding the portal triads. These degenerative changes are not specific, disclosing, in turn, the following: swelling of the cells, blurring of the cell margins, granularity and vacuolization of the cytoplasm, irreversible (pyknosis, karyorrhexis, and

	Apresoline	Veratrum Viride
Mode of Action	Not entirely known. a) Evidence that it acts centrally to reduce outflow of sympathetic vasopressor impulses thereby causing vasodilatation. b) Felt to neutralize some of humoral vasopressor substances.	Not entirely known. a) Effect mediated partially through the vagus by direct stimulation of afferent nerve endings in walls of the ventricle, causing depression of the vasoconstrictor center. b) Acts centrally on chemoreceptor centers and has peripheral vasodilating effect. c) Some effect on humoral vasopressor substances.
Therapeutic Effect	Hypotension	More pronounced hypotensive effects.
Renal Effect	Increased renal blood flow	Initial renal vasoconstriction. After 1 hour, return of renal blood flow to normal or supernormal levels.
Pulse	Tachycardia	Unaffected or bradycardia
Cardiac Output	Increased	Unchanged in compensated hearts. Increased in patients with CHF.
Side Effects	Restlessness, apprehension, palpitations, nausea, vomiting, headaches —at times maintained until B.p. rises to previous levels. Causes postural hypotension.	Transient restlessness, nausea and vomiting. Does not cause postural hypotension.

karyolysis) changes in the nuclei, and finally complete dissolution of the cells. When the cells have disappeared the supporting framework of the liver becomes quite conspicuous. Concomitantly, however, there is rupture of the capillaries and the entire area becomes flooded with erythrocytes. If the patient dies soon after these changes occur, there are no other alterations. If she survives several hours or longer, the areas of necrosis become secondarily invaded with neutrophils. Subsequently, there is a complete regeneration of the hepatic parenchyma in cases where destruction has been minimal or there is replacement fibrosis in cases where destruction has been more extensive.

Kidneys—The kidneys are enlarged. The capsules strip with ease, and the exposed external surfaces are pale, smooth, and glistening. Cut surfaces reveal swelling of the cortices and some obscuration of the cortico-medullary demarcations. The peripelvic fat tissue, calyces, and pelves remain essentially normal. Microscopically the eclamptic changes are quite definite although as stated, by some not considered pathognomonic. The glomeruli are generally large and avascular. They show a diffuse increase of endothelial cells but even more prominently they reveal a diffuse thickening of the basement membranes of the capillaries. In addition, there may be focal or diffuse, fibrinoid or hyalin necrosis of the glomerular tufts with or without adhesions to the glomerular capsule. The latter, in turn, may or may not disclose fibrosis. The afferent arterioles, especially in their preglomerular portions, disclose swelling, degeneration, and necrosis of their walls with occasional luminal thrombosis. The

proximal portions of the tubules show parenchymatous, hydropic, hyalin droplets, and fatty degeneration. Rarely these degenerative changes may become irreversible and are then followed by complete necrosis of the tubular epithelium. In addition, the lumens of the tubules may reveal cellular, hyalin, or granular casts. The interstitial tissue discloses varying degrees of congestion, edema and leukocytic permeation.

Lesions in other organs resolve themselves essentially into those of congestion, edema, and hemorrhage.

Treatment The medical management of toxemia is divided into two major groupings—prophylactic and therapeutic.

In attempting prophylaxis, one must recognize the patients in whom toxemia is prone to occur. They are those with prepregnant hypertension, and those developing generalized edema. With the appearance of edema, more than usual supervision should be given.

Periodic examination of all pregnant women beginning as early in pregnancy as possible should include weight, blood pressure, urinalysis and examination for the presence of edema. Rapid weight gain offers the best guide to fluid retention. Dieckman states that the total weight gain for the pregnancy should not exceed 8 kilos. (17.6 lbs) and the average weekly gain, for the last 28 weeks, should not amount to more than 250 G/week (0.6 lb). The edema is preventable in many instances by administering a low salt diet. In the more resistant cases ammonium chloride may be helpful in promoting fluid loss. Mercurial diuretics have met with little success in this condition.

From the beginning of this century the medical therapy of toxemia has consisted largely of sedation with barbiturates and magnesium sulfate, and the promotion of diuresis. Of late the use of the hypotensive agents has been advocated in the therapy of toxemia. They will be discussed separately.

Using the standard regime, a patient with toxemia might be managed as follows:—

For Preeclampsia

1. Bed rest at home or in a hospital
2. High protein, low salt diet
3. Intermittent ammonium chloride therapy
4. Mild cases—Phenobarbital 0.03-0.06 G. T.I.D.
   More severe cases—Sod. Amytal 0.25-0.5 G. s.c.q. 4-12 hours
5. Frequent observations of weight, B.p., urine, edema and symptoms are made to judge the progress of the disorder.

For Eclampsia

1. Patient under constant observation in quiet, darkened room
2. Temp. and urine vol. recorded q. 2 hours, B.p., pulse, and respiration at least every one half hour
3. Magnesium Sulfate—12 cc. 50% soln. immediately and repeated in 6 cc. doses after each convulsion until they cease or a maximum of 40 cc./24 hr. given
4. Sod. amytal—0.25 G. s.c.q. 4-8 h. If ineffective, doses of 0.3-1.0 G. I.V. slowly
5. To promote diuresis—500-1000 cc. 20% glucose soln. over a 30-50 min. period. Repeated q. 6-8 hours.

This treatment is judged on its ability to—

1. stop the convulsions or prevent recurrence.
2. result in an urinary output of at least 700 cc./24 hr.

3. prevent the onset or increase in coma.

If it fails in these after 8-12 hours, arrangements are made to terminate the pregnancy. The most widely used methods are induction of labor by rupture of the membranes and/or injections of posterior pituitary extract/or Caesarean section. Eclamptic patients are not good anaesthetic or operative risks. The method by which pregnancy is terminated depends on many factors and is an obstetrical problem.

Veratrum viride and Apresoline are the hypotensive agents found most acceptable in the treatment of toxemia of pregnancy.

It is felt by those working in the field, that veratrum viride is to be preferred because it produces the desired therapeutic effect with a minimum of undesirable side effects.

The purified products of veratrum viride may be used as follows:

For Preeclampsia:

1. 0.5 cc. purified veratrum (Vergitryl, Veriloidor I.N. 66) mixed with 1cc. 1% procaine *I.M.* at ounce.

2. Record B.p. and pulse every ½ hour.

3. Repeat purified veratrum, 0.5 cc. I.M., whenever B.p. is over 140/90. May give as often as every hour if necessary.

4. If no hypotensive effect from 0.5 cc. at end of one hour, increase to 0.6 cc.

5. If nausea or vomiting occur give 50 mg. sodium phenobarbital I.V.

Observations of the B.p. chart and evaluation of the patient will usually show some pattern and give some idea of the patient's sensitivity to the drug. The amount and dosage intervals may vary from patient to patient without correlation with the initial height of the B.p. or severity of the toxemic state.

For Eclampsia:

1. Mix 0.5 cc. purified veratrum with 20 cc. 5% D/W for I.V. use. While one person checks B.p. another gives the medication at a rate of 1 cc./min. until first 20 mm. fall in systolic or 10 mm. reduction is diastolic pressure.

2, The needle is left in the vein. No additional veratrum given for there is frequently a precipitous drop in B.p. in the subsequent 1-2 min.

3. If after waiting 1-2 min. there is no fall, proceed with veratrum administration at a rate of 1cc./min., stopping at the first subsequent sign of hypotension.

4. Remove the needle. Place polyethylene catheter in vein via 15 gauge needle.

5. Begin giving 5% G/W through the catheter. Subsequent medication is given via the catheter.

6. B.p. recorded at 15 min. intervals and additional veratrum (½ of previous effective dose) is given whenever B.p. is 140/90 or above. Again appraisal of the patient, after a few hours, should reveal some pattern of response. Usually the interval between injections lengthens as the severity of the condition diminishes.

Again, decision concerning delivery is left to the obstetrician. Generally, after the blood pressure has been stabilized for 24-48 hours, if a viable fetus is present, the patient is delivered by the most indicated method.

Use of the hypotensive drugs in toxemia has been rather limited. The benefits claimed for them have been 1) a disappearance of symptoms 2) decrease in edema 3) maintenance of consciousness of the patient 4) prolongation of the pregnancy in certain cases

5) protection of the foetus from large doses of sedation.

The neonatal mortality is also quite high because of a greater incidence of prematurity.

Fetal Mortality and Sequelae

	Range	Average
Eclampsia	20 → 60%	35%
Pre-eclampsia	5 → 30%	10%

Mild and severe hypertensive disease has a decidedly higher fetal loss than mild and severe preeclampsia.

If the child survives the neonatal period however, there are no known sequelae.

Maternal Mortality Maternal mortality from eclmapsia ranges from 2% to 20% with an average of 8% for maternity hospitals in the U. S.

The average mortality of ante-partum eclampsia is 21%; intrapartum 13%; post-partum 16%.

In general, the longer the time between the first convulsion and delivery and the earlier the eclampsia occurs in pregnancy, the higher the mortality rate.

Over 50% of patients who have had toxemia have subsequent normal pregnancies. About 10% of eclamptics have a recurrence of convulsions in subsequent pregnancies.

Maternal Sequelae Careful follow-up studies indicate that approximately 25% of those with normal prepregnant blood pressure who develop toxemia are left with a permanent post-partum hypertension. A similar percentage of hypertensive patients who developed superimposed toxemia have a higher blood pressure and more albuminuria after their pathologic pregnancy.

Dieckmann and certain others believe that those developing vascular disease are *susceptible* individuals who would have ultimately shown a hypertension even without the toxemic pregnancy.

Work done by others, notably Dexter and Weiss, causes them to conclude that permanent vascular-renal disease is definitely attributable to toxemia. From their studies it appears that the duration of toxemia during pregnancy is of greater importance than its severity in giving rise to permanent vascular disease. They advocate termination of pregnancy after three weeks of conservative therapy in order to avoid late vascular damage.

When permanent vascular disease does develop, the course is one of chronic progression, and resembles other types of hypertension in every way. Usually in those cases in which toxemia was characterized mainly by hypertension during pregnancy, the course post-partum is predominantly hypertensive with cardiac failure or cerebral haemorrhage developing terminally. Patients in whom toxemia is manifested primarily by albuminuria are prone to develop renal insufficiency as the terminal episode.

Summary

The importance of recognizing the group of patients with post-toxemic hypertension lies not so much in its treatment as in its prevention. Apparently, in the great majority of cases this disease is preventable by interrupting pregnancy before the hypertension or albuminuria have lasted for more than three weeks. This applies as much to mild as to severe toxemia.

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Arterial Grafts

Some Indications for Transplantation

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The scope of surgery has been increased by the use of preserved arterial grafts in such conditions as congenital cardio-vascular deformities, degenerative and occlusive arterial disease, traumatic loss of vessel continuity and radical malignancy surgery.

Many methods of graft storage and procurement have been reported.[1-2-3] The most promising method of preservation is that of lyophilization.[3] Such a prepared graft can be stored indefinitely at room temperature and be readily transported.

Our artery bank has been in operation at the Medical Center since 1950. The availability of such a source of banked arteries has made it feasible to do surgical procedures which heretofore would have been impossible.

Cancer Surgery Artery grafting has a definitive role in the radical resection of carcinoma. The basic concept of good cancer surgery with the intent of cure is a block removal of the primary lesion plus the regional lymphatics. Ofttimes the surgeon has had to stop short of this ideal when a vital aterial vessel is involved in the tumor mass or its sacrifice would impair life or vital organ function.

Previously deemed inoperable carcinoma of the neck has been operated on with success. A preoperative determination of cerebral circulation is done with the aid of angiograms, intra-arterial pressure readings, and direct occlusion of the carotids. A temporary external polyethylene shunt is used to provide an uninterrupted flow of blood to the brain while the carotid artery is resected and the defect replaced with a graft.[5] (Fig. 1 & 2)

The principle of shunting blood around the operative field would seem to have a wide application to other vital organ systems by preventing ischemic and irreversible tissue damage.[4]

Trauma The prompt use of an artery graft will often save an extremity where a major blood vessel is damaged or destroyed. The indications are certainly less frequent in civilian life but equally brilliant results have been reported by the military. A multiplicity of injury usually is present in such a severely damaged extremity. The at-

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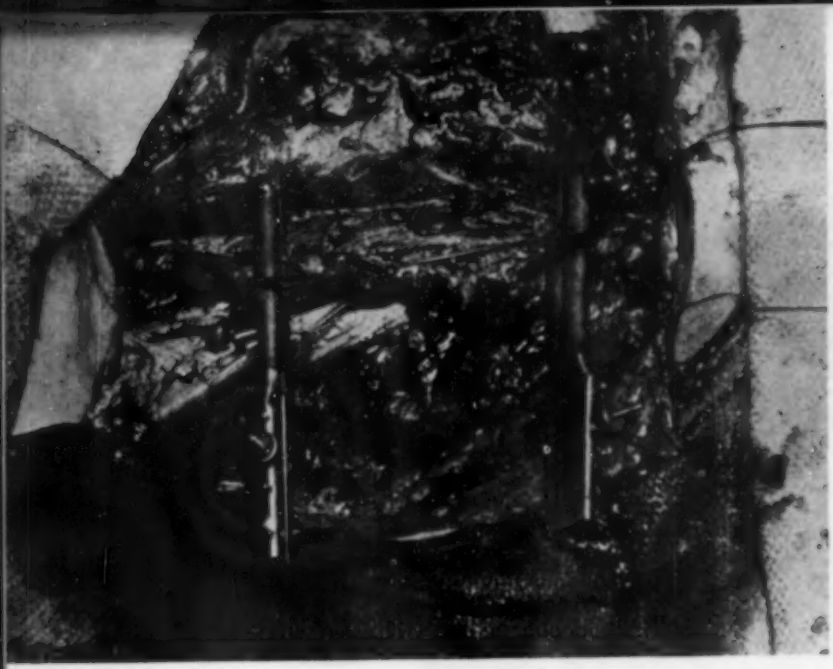
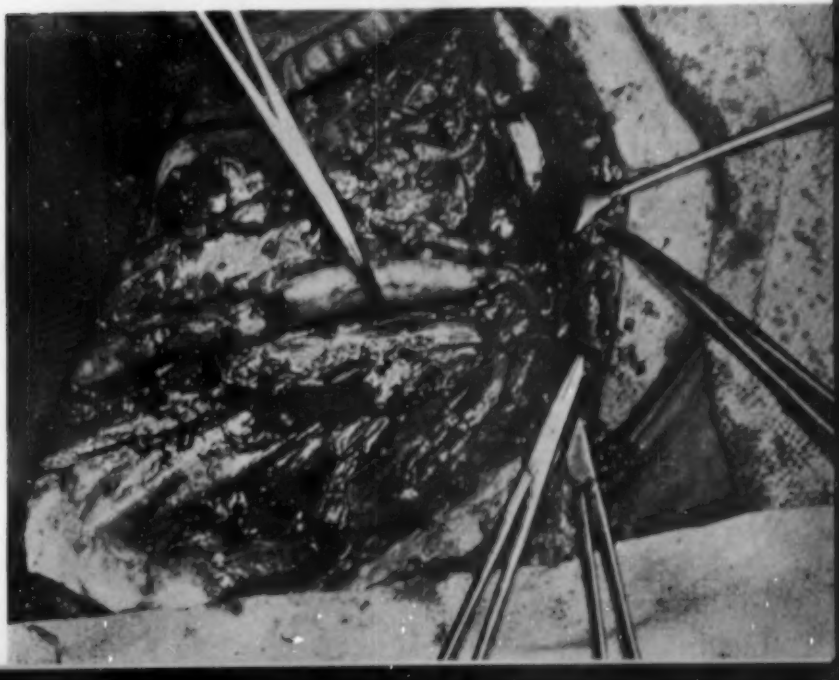


Fig. 1. 56-year-old male with recurrent cancer of neck treated previously with surgery and radiation. Radical neck dissection with portion of common and internal carotid artery. Polyethylene shunt in place to provide cerebral circulation

Fig. 2. Homologous preserved artery graft anastomosed to bridge the carotid defect. Temporary plastic shunt removed.



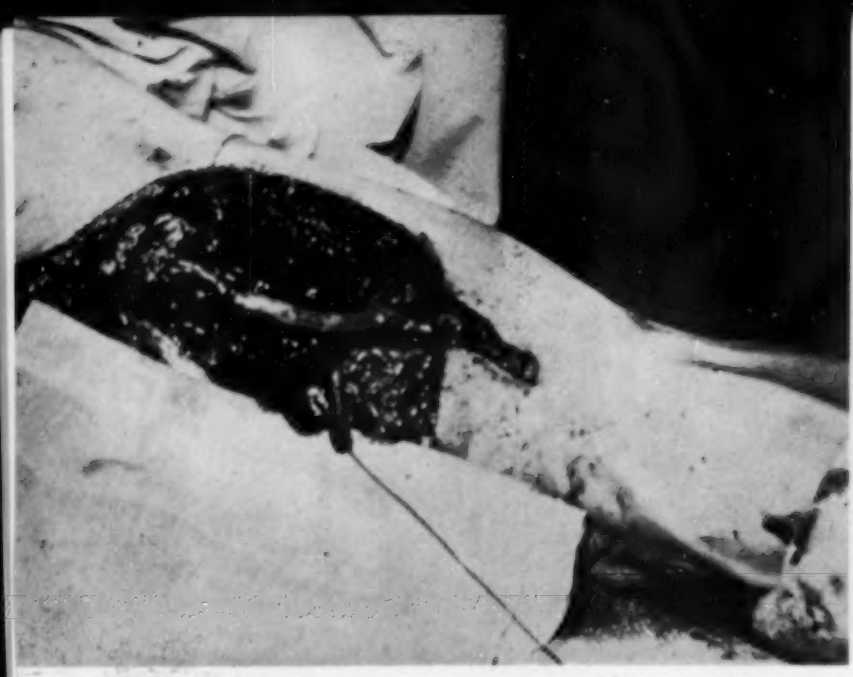


Fig. 3. 61-year-old male with gunshot wound of left upper arm in an area deficient in collateral circulation. Wound debrided, brachial artery defect grafted, median nerve sutured and the operative field covered with an immediate flap based on the lateral chest wall.

Fig. 4. Final appearance of flap covered defect. Only two operations needed, original surgery plus the severance of the flap from the chest wall.

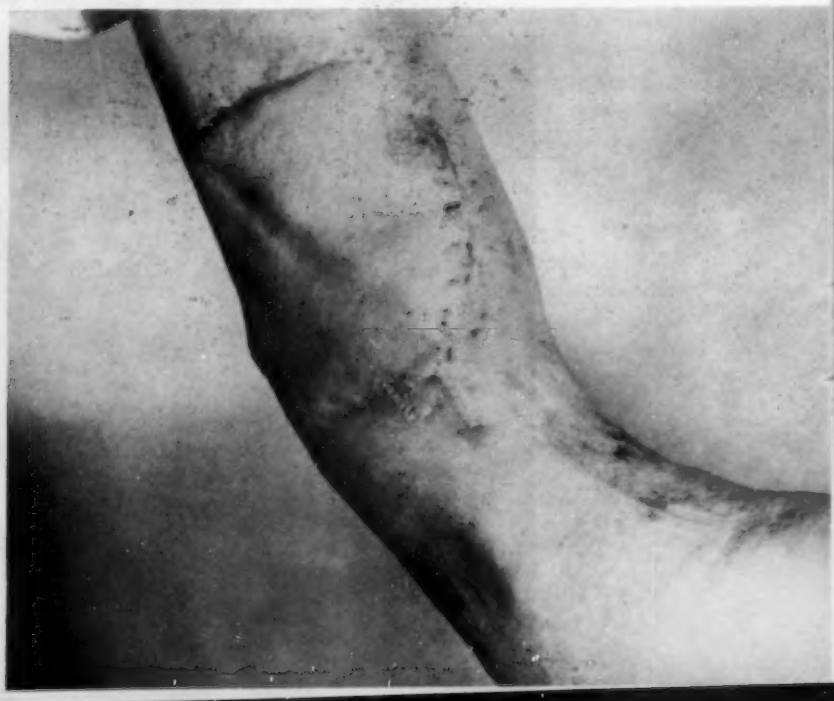
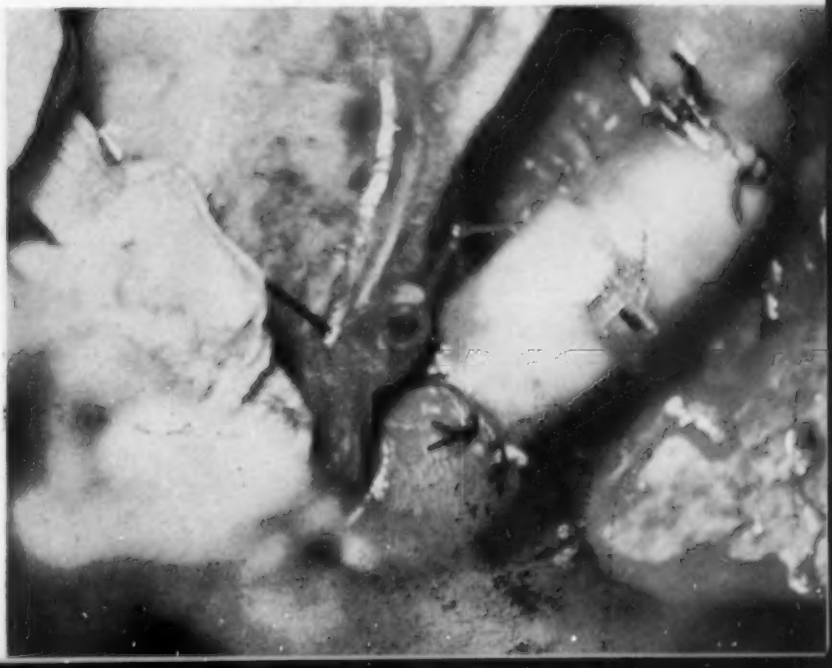


Fig. 5. 29-year-old female with coarctation of the aorta. 7.5 cm. area resected because of proximal arteriosclerotic changes.

Fig. 6. Preserved artery graft in place restoring aortic continuity.



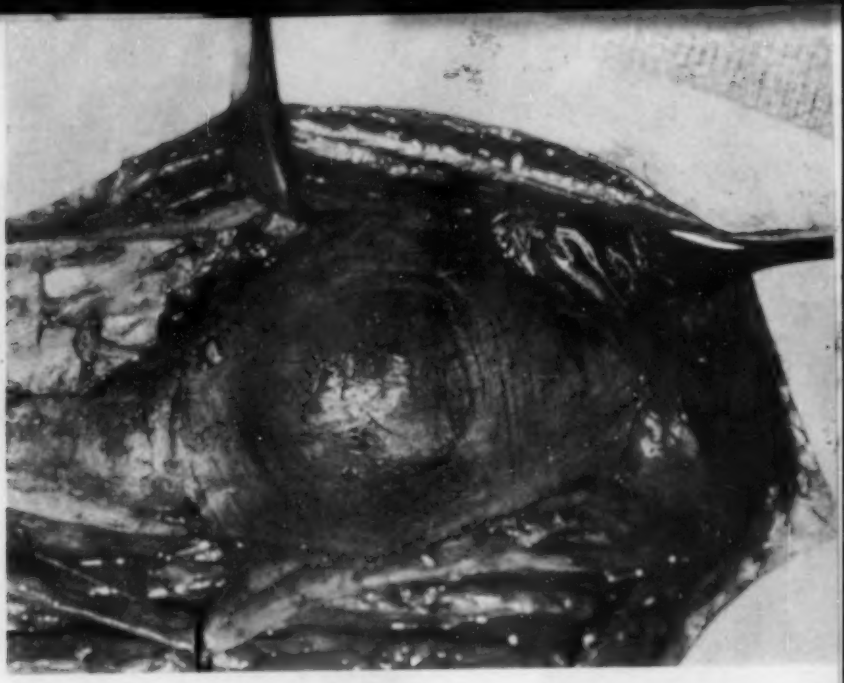


Fig. 7. 85-year-old male with localized aneurysm of left femoral artery.

Fig. 8. Artery graft replacement. Procedure done under local anesthesia. Patient ambulant day following surgery.

tending surgeon must be able to handle nerve, vessel and coverage problems. (Fig. 4 & 5) One should keep in mind that if banked artery is not available a segment of saphenous vein can be used for repair. Such a graft of course can be only used for small caliber vessels. The vein graft should be rotated 180° so that if valves are present in the transferred segment they do not cause obstruction.

Cardiovascular Defects The repair of coarctation of the aorta has been complicated when the narrowed segment is extensive and excision with end to end anastomosis then becomes impossible.

The restoration of circulation by anastomosing the left subclavian artery to the distal aorta in older patients has resulted in the loss of the left arm. However, the use of a preserved artery graft has made the repair of an extensive aortic defect much easier and safer. The artery graft also allows the suture lines to be free of tension. (Fig. 5 & 6)

Localized Degenerative Peripheral Vascular Disease Degenerative and occlusive arterial disease is becoming more of a medical and surgical problem because of longevity. Localized occlusion, or aneurysm can now be safely and effectively operated upon with a good prognosis. (Fig. 7 & 8) Gratifying and superior results have been obtained by excision and arterial graft replacement than heretofore with sympathectomy or aneurysmorrhaphy. Aneurysms of the abdominal and thoracic aorta are also being included in the surgical sphere.[6-7]

Summary

The application of preserved artery grafts in the restoration of major arterial segments is a decided advance in the field of reportive surgery.

Better methods of graft preservation have simplified and increased the length of storage time.

A non-human source of artery procurement is being studied intensively. The clinical use of animal artery grafts in humans has already ben reported with success.[3]

Every large medical center should have available a source of preserved artery grafts and personnel trained in their use.

A few of the current surgical indications for artery graft replacement have been reviewed.

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Newer Developments In Proctology

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Immediate Ambulation Ambulatory proctology may be defined as the diagnosis and treatment of diseases of the anus, rectum and sigmoid bowel without confining the patient to bed. The treatment may be medical or surgical, conservative or radical.

If the patient is not confined to bed that treatment must be defined as ambulatory. Thus, excision of a pilonidal cyst, extensive hemorrhoidectomy, amputation of a rectal prolapse, etc., followed by return of the patient to his home, although not necessarily to bed, are within the domain of ambulatory proctology.

Ambulatory proctology obviously does not denote merely the injection treatment of hemorrhoids. Of course, it is assumed that the office is equipped with operating tables, sterilizers, autoclaves, complete surgical instrument sets, appropriate anesthetic apparatus, and adequate assistants. Such an office is actually an operating room. Under these circumstances extensive hemorrhoidectomies, fistulectomies, and other proctologic procedures may be performed, permitting the patient to leave the office after a rest period of forty-five minutes (to allow the caudal anesthesia to wear away) and often to drive his own car home.

The advantages of immediate ambulation include the practical elimination of pulmonary and circulatory system complications (especially embolism), increased rapidly of wound healing, and a better general psychosomatic readjustment for the patient.

In addition to the physiologic advantages, ambulatory technics spare the patient the necessity for extensive hospitalization, and the loss of income while away from work. Most patients operated in this fashion are back at work within twenty-four to forty-eight hours after surgery.

It must once again be emphasized that the physician practicing the technic of ambulatory proctology must have at his disposal, in his office, well equipped operating rooms and adequate nursing assistance. Surgery is just as extensive as if the patient were in a hospital operating room. If biopsies are performed, they should include en bloc tumors wherever possible.

The only important differences, between the patient operated in this fashion and the hospitalized patient, are the physiologic and economic advantages above described, and the fact that the patient's comfort is the primary consideration in ambulatory proctologic technics. Therapy, both surgical and

non-surgical, is otherwise exactly the same as that employed in hospital proctology. Thus, any procedure described in this paper may be applied either in office or hospital practice without change.

Antibiotics and Sulfonamides

The development of newer antibiotics is so rapid that current publications must be consulted to keep abreast of the changes. We will consider only the general concepts as they apply to proctology. The sulfa drugs most commonly used in proctology are those that are poorly absorbed from the intestinal tract: sulfaguanidine, sulfasuxidine and sulfathalidine. These drugs markedly reduce bacterial flora in the colon. Being poorly absorbed, they rarely produce renal lesions, but may occasionally cause skin rashes and drug fever. Sulfadiazine and sufamerazine may also be of value to the proctologist.

Indeed, a combination such as sulfadiazine, sulfamerazine and sulfamethazine has been advocated on the theory that this mixture is less apt to produce renal damage or calculi. The bacteriostatic effect is considered additive.

Antibiotics available to the proctologist include penicillin, tyrothricin, streptomycin, chloromycetin, aureomycin, terramycin, erythromycin and bacitracin. Penicillin is the most frequently employed.

Procaine penicillin G in aqueous solution is given routinely in a dosage of 300,000 units immediately after surgery, and each day thereafter for at least two post-operative days. In infectious cases the duration of treatment is prolonged, as required. It is probably best to avoid penicillin by mouth or in ointment form. Sensitivity appears to develop rather easily when penicillin is taken in such form.

Isotonic solutions of tyrothricin (0.5 mg. of tyrothricin per cc.) may be used for irrigation or as a wet dressing.

Streptomycin is perhaps best reserved for the tuberculosis problems. It may also be used by mouth to sterilize the bowel. However, streptomycin easily produces resistance to bacterial strains, or resistant mutants.

Aureomycin is valuable to prepare the patient for intestinal surgery. It is also effective as an adjunct in the treatment of chronic, non-specific ulcerative colitis. For the control of bacillary infections other than tuberculosis, aureomycin is more effective than streptomycin. It has also proven useful in the treatment of lymphogranuloma venereum and granuloma inguinale.

Chloromycetin by mouth must be used with caution to avoid blood dyscrasias. It is valuable in the treatment of Salmonella infections and may be of value in Shigella dysentery. Clinical cure of lymphogranuloma venereum and granuloma inguinale has been obtained with chloromycetin.

Erythromycin is one of the newer broad spectrum antibiotics, and its value in proctologic conditions is under investigation now. *Staphylococcus aureus* infections appear to respond well to erythromycin. Erythromycin is particularly indicated in staphylococcic enterocolitis following other broad-spectrum antibiotics.

Terramycin has been highly effective in the treatment of acute gonorrhea, and may be of value in granuloma inguinale and lymphogranuloma venereum. Indeed, most hemolytic and non-hemolytic streptococci are highly susceptible to terramycin.

Again, the reader is cautioned against

the use of any of these antibiotics without careful study of recent literature. Developments in the field are very rapid and must be followed carefully.

Newer Hemostatic Agents The most important of the new hemostatic agents are thrombin, fibrin foam, gelatin sponge, and oxidized cellulose. Of course, nothing replaces meticulous surgical control of bleeding from larger vessels by clamp and ligature. The physician must always emphasize careful surgical hemostasis. However, the newer hemostatic agents are important adjuncts in preventing excessive blood loss during surgery, and the possibility of such blood loss post-operatively.

Upon completion of anorectal surgery, a strip of oxidized cellulose gauze is placed directly into the anal canal. There should be no oozing of blood at the time the oxidized cellulose is introduced. Again we must emphasize the importance of meticulous hemostasis at the time of surgery, whether the patient is to be ambulatory or hospitalized. The oxidized cellulose gauze is merely an adjunct measure, and does not replace careful attention to surgical detail.

Oxidized cellulose is an excellent post-operative dressing for open pilonidal wounds. It is spread over the inner surface of the wound, and ordinary gauze is then packed on top of this lining.

Oxidized cellulose gauze is also of special value in handling oozing wounds after tattoo-neurotomy for pruritus ani.

A strip of oxidized cellulose in direct contact with the wound, with a superimposed ordinary gauze pressure pack, furnishes an excellent dressing for most rectal surgery. The completed dressing is kept in place with adhesive strapping to hold the buttocks together.

Within twenty-four hours after its application the cellulose becomes soft and friable, and should be removed. It is particularly important to remove all packing after a fistulectomy.

Cut ends of muscle should never be kept apart more than twenty-four hours. However, oxidized gauze which remains within the anal canal or elsewhere in anorectal wounds will not be a source of irritation or infection.

The Thermal Cutting Unit is simply a knife with a mechanism for controlling

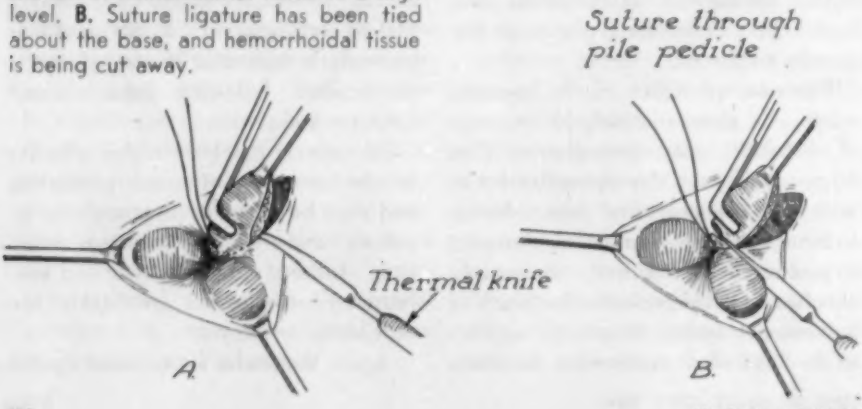


Fig. 1. Hemorrhoidectomy with thermal knife. A. Suture ligature through pile pedicle. Mixter clamp on pedicle, dissection of hemorrhoidal tissue to a high level. B. Suture ligature has been tied about the base, and hemorrhoidal tissue is being cut away.

the degree of heat in the tip of the knife. The knife is made of German silver, and contains a heating element. It is not sharp, and cutting is caused by heat rather than a sharp edge.

The tissue to be incised must be held under tension. (Fig. 1) With thermal cutting neat, clean incisions can be made without burning adjacent tissue. Incisions are like those produced by the sharpest scalpel. There is no change in the appearance of the tissue bordering the line of incisions: fat lobules will stand out clearly, as does scar tissue and granulation tissue, without charring. (Fig. 2)

Hemostasis is very good, but not complete. All vessels not controlled while cutting should be clamped and tied. Of course, temperature in the tip can be reduced for coagulation purposes. However, in hemorrhoidal surgery it is wiser to control bleeding by clamp and ligature, rather than to depend upon a coagulation effect. Clean dissection is the surgeon's goal whether using the thermal cutting unit or the scalpel. The two major advantages of the cutting unit over the scalpel are: one, the operation is performed in a practically bloodless field, and two, the heat has a sterilizing effect. A lesser advantage is that the post-operative edema is of a slighter degree. The use of the thermal knife does not delay healing.

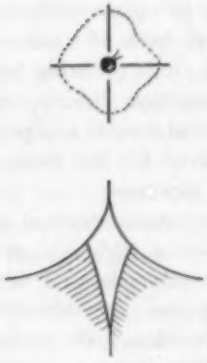
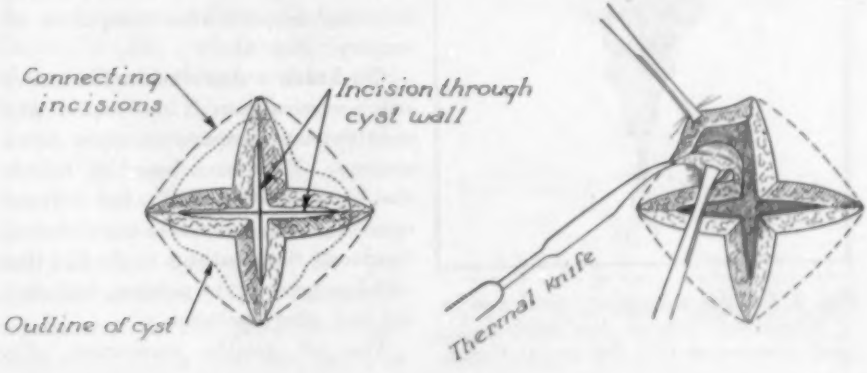


Fig. 2. Cruciate incision technic for pilonidal cyst: Anteroposterior and lateral incisions determine the dimensions of the cyst.

Cytologic and Sponge Biopsy Technics of Cancer Diagnosis

Whether the patient is operated in ambulatory fashion or in the hospital, routine tissue studies are recommended. The early diagnosis of visible anorectal or sigmoid carcinoma by a smear technic is one of the newer developments in proctology. Usually a considerable interval elapses between the patient's first visit to the physician and the start of treatment, whether surgical or irradiation therapy. Since it is not known just when metastases occur,



every effort should be made to shorten the time between the initial consultation and institution of treatment. The Papanicolaou smear technic may be adapted to the rapid diagnosis of rectal neoplasms.

Psychosomatic Proctology It is important that the proctologist recognize psychopathology of the gastrointestinal tract. A study of psychosomatic proctology includes mucous colitis, colon motor neuroses, ulcerative colitis, pathology subsequent to psychogenic constipation or diarrhea, pruritus ani, foreign bodies and rectal trauma, and proctalgia fugax. Space is too short in this paper to allow for consideration of any of these entitles.

An abbreviated form of psychotherapy is of value in most of these cases. Guided association analysis (including the concepts of general semantics) is the recommended therapy. Consultation with the psychiatrist is often indicated.

Fig. 3. Caudal analgesia: Spinal needle is introduced through the sacrococcygeal membrane into the sacral hiatus.

Another advance in proctology has been the development of the tattoo-neurotomy technique for pruritus ani. Pruritus ani has been the bane of the proctologist's life for many years. The relatively recent recognition of the important emotional component in pernicious pruritus ani, and the development of the tattoo-neurotomy technique for immediate relief, have improved the prognosis in many of these cases.

Caudal Analgesia is relatively simple to produce, and is particularly advantageous for anorectal surgery. (Fig. 3) Of course, local infiltration analgesia also may be satisfactorily employed in almost all types of anorectal surgery. However, it is probably best to avoid needle insertion directly into an infected area, and caudal analgesia is therefore preferred for the therapy of most anorectal abscesses.

This anesethsia produces excellent relaxation and exposure. Properly performed, it is relatively safe, and with minimal average dosage (approximately 15 cc. of 1½% Metycaine), the patient may be completely ambulatory within forty-five minutes after completion of surgery. (Fig. 4)

Oil Soluble Anesthesia The fear of post-operative pain is the reason why most patients postpone necessary rectal surgery. They have heard of friends that "crawled the wall" after a rectal operation. It is therefore imperative to re-educate these patients to the fact that rectal surgery can be painless, both during and after operation.

The oil soluble anesthetics offer

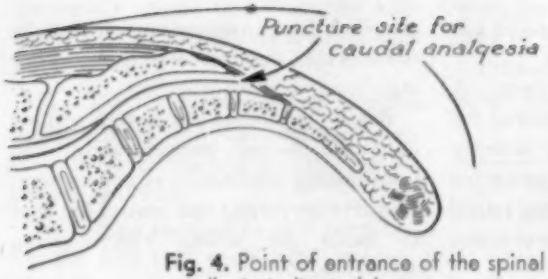


Fig. 4. Point of entrance of the spinal needle is indicated by arrow.

many advantages and no disadvantages. With proper technic analgesia is prompt, lasting and uncomplicated. (Figs. 5 and 6)

An excellent formula contains: 6.5% propyl amino benzoate, 5% benzyl alcohol and 1.5% procaine base in sesame oil, or sweet almond oil.

The relative freedom from post-operative pain produced by this anesthesia is a revelation to the average person. The patient thus leaves the operating table after a painless procedure, and is free from severe pain (or relatively so), not only immediately post-operatively, but also during the succeeding crucial days.

Pre-operative and Post-operative Management for Immediate Ambulation The pre-operative and post-operative management of the ambulatory patient does not differ materially from that of the hospital patient. Surgery is often performed at the time of the initial consultation, after careful examination and sigmoidoscopy. Of course, these are patients referred by another physician, and a surgical diagnosis has usually been made beforehand. In such cases, however, there has been no opportunity for pre-operative sedation. Such sedation is unnecessary if the physician-patient relationship is free from fear, and is at the same time sufficiently authoritative. The use of soothing music in the operating room is also of great value in allaying apprehension.

However, elective surgical patients may be prepared by sedation the night before surgery. A three grain capsule of sodium amytal will provide a restful night. One and one half grains of nembutal is given two hours, and again one hour before operation.

If the patient is to drive home after surgery, all immediate pre-operative sedation is omitted. As indicated, in the proper physician-patient emotional atmosphere, with a relaxed yet authoritative physician attitude, the patient will respond with similar relaxation, and freedom from fear. "Vocal anesthesia" is entirely adequate to keep

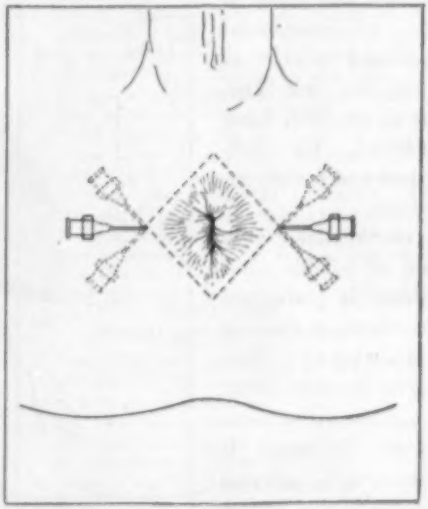


Fig. 5. Local anesthetic technic showing lateral infiltration points and fan-wise distribution.

the patient relaxed, once the caudal has taken effect.

Breakfast is omitted in all cases. A plain warm water enema is ordered the night before operation (never order a soap enema). The patient is instructed to irrigate the bowel until the return flow is clear, regardless of how many quarts may be required.

It is not often necessary to employ either sulfonamides or antibiotics in pre-operative preparation of patients for ambulatory proctologic surgery. However, 300,000 units of aqueous procaine penicillin G is given intramuscularly immediately after operation, and repeated on each of the first two post-operative days.

An adhesive strap dressing is used to hold the buttocks together after surgery. The T binder may be employed if preferred. The strappings are removed in twenty-four hours, and replaced by a commercial sanitary napkin or pad and belt. This is an excellent outer dressing for both male and female patients.

Infiltration with an oil soluble anesthetic is performed routinely at the time of surgery. This gives the patient post-operative comfort. However, if there is a perianal infection, no oil soluble anesthetic is used. In such cases hot witch hazel compresses will provide considerable comfort and hasten healing.

Bowel movement is not permitted until the second post-operative day. Constipating medication is unnecessary. The average patient can control the urge to move the bowels without drug assistance.

One ounce of mineral oil is prescribed to begin the night of surgery. This dosage is gradually reduced as normal bowel movements begin to form during the first two or three weeks after operation.

In some cases the first post-operative evacuation may be eased by a mineral oil instillation on the second or third post-operative day.

The ambulatory patient is allowed to be up and about the day after operation.

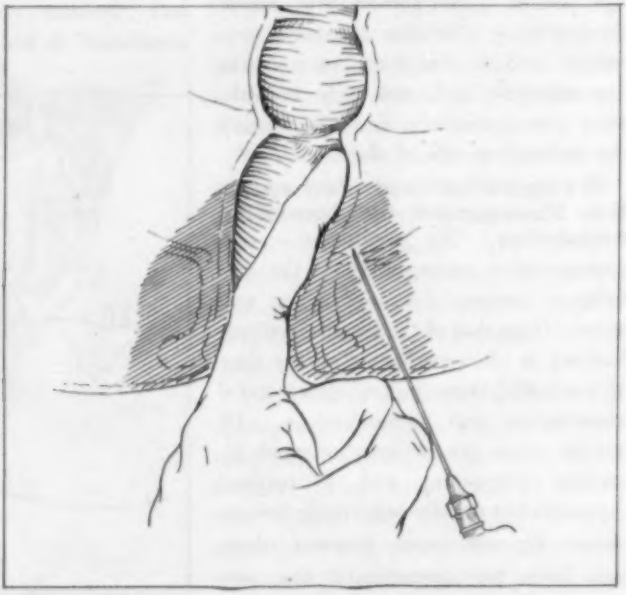


Fig. 6. A cone of anesthesia is produced by deep injection. The finger in the rectum acts as a guide to prevent puncture of the rectal mucosa.

He usually returns to full activity within twenty-four to forty-eight hours after surgery.

Hot sitz baths are required for ten minutes night and morning each day. No other local care is required of the patient at home.

No digital manipulation is permitted for the first two weeks after surgery. The stitches come away during the seventh to the fourteenth post-operative day, and it is during that time that post-operative bleeding is most apt to occur. Thus, the patient is instructed to be particularly careful during the second post-operative week, to rest as much as possible, and to limit physical stress during that time.

Local application of a soothing, healing ointment such as five per cent scarlet red, 0.5% tetracaine base and lanolin will be effective. Digital exploration begins with the third post-operative week, the patient being seen on alternate days to prevent stricture or stenosis.

Printed post-operative instructions sheets are provided as shown herewith.

Post-operative Instructions

1. Take two large tablespoonfuls of mineral oil each night, beginning tonight.
2. You may eat any food other than fruits, fruit juices and raw vegetables.
3. Tomorrow you may eat all foods, including fruits, fruit juices and raw vegetables.
4. DO NOT move your bowels until you are told to do so. (Ignore the urge and it soon disappears.)
5. You will receive a prescription for both pain and sleeping capsules. If you have pain take one capsule. If you continue to be uncomfortable, you may take both a pain and sleeping capsule one hour later. Darken your bedroom, relax and try to sleep. DO NOT TAKE THESE UNLESS YOU ARE IN PAIN.
6. Take one sleeping capsule at bedtime. If you waken during the night take another.
7. Buy Kotex (or any other sanitary napkin), an elastic sanitary pinless belt and sterile 3 X 3 gauze squares. Bring the pads and belt to the office at the time of your first visit.

Post-operative Instructions

(For day following operation and succeeding days)

1. Continue mineral oil.
2. Do not move your bowels until tomorrow. If it is absolutely necessary for you to move your bowels today, sit in a hot tub of water immediately after.
3. Sit in hot water, in a tub or other container, for ten minutes after each bowel movement. The water should be as hot as you can comfortably bear. Test it with your elbow. The elbow can stand approximately 110 degrees F.
4. You are to average three to four hot baths a day starting tomorrow. (This will promote faster healing of tissues.)
5. You need no longer restrict your diet. You can now eat fruits, fruit juices and raw vegetables as well as other foods.
6. If your bowels become too active, stop the mineral oil. If they continue to be active stop or reduce the intake of fruits, fruit juices and raw vegetables
7. If you DO NOT have a bowel movement tomorrow take one ounce of milk of magnesia tomorrow evening in addition to the mineral oil you have been taking. Unless otherwise instructed, take milk of magnesia ONLY on this occasion.
8. If you still do not have a bowel movement the day after taking the milk of magnesia and mineral oil, then you must take an enema. Use a RUBBER RECTAL TUBE (which you can purchase in a drug store) rather than a bone tip, and lubricate it with a large quantity of vaseline. Do not insert more than two inches of the rectal tube. Use plain warm water.
9. Bleeding may occur as a result of the stitches coming out. Do not be alarmed. This is normal.

Instructions

(Second post-operative week)

1. During the next seven or eight days the stitches will be coming away. Reduce activity to a minimum.
2. Lie down as much as possible, do not lift anything heavy, do no housework, and do not strain at bowel movement.
3. Take no aspirin at any time.
4. Retire early every night.

43-55 Kissena Boulevard

The A's, B's, C's of Forceps Delivery

BRUNEL D. FARIS, M.D.
Oklahoma City, Okla.

Since DeLee taught the use of the prophylactic forceps many papers have been written on their use and abuse.

A simple set of rules for the use of forceps has been a great help to me and I hope will be to others. With an apology to many who are more proficient in their use than I, may I offer the following rules?

A's 1. Application *must be* correct.
2. Amniotic sac *must be* ruptured.

B's 1. Bladder *must be* empty.
2. Bowels *must be* empty.
3. Body of the mother *must be* as far down on the delivery table as possible.

Rupturing of amniotic sac

Body far down on table

C's 1. Cord *must be* out of the way.
2. Cervix *must be* fully dilated and outside the forceps.
3. Condition the perineum by ironing out with the hands and plenty of green soap.

D's 1. Don't hurry.

2. Don't apply high forceps.

Ironing out of perineum

E's 1. Ears of the baby should be carefully palpated for correct position of the head and application of forceps.

2. Elect to do a section before traumatizing with forceps.

F's 1. Fenestrated blades are more apt to traumatize the head than solid.

Diagram of head levels

Solid blades in favorable position

G's 1. Good judgment seldom comes without experience and the use of the forceps.

H's 1. Hold to the forceps that you have been used to and have been trained with if possible.

Since several obstetricians have asked me to repeat these I am publishing them for those Doctors concerned.

117 North Broadway

Practical Aspects of Acute Appendicitis

BENJAMIN F. THOMAS, JR., M.D.
Auburn, Ala.

Acute appendicitis in the small town and rural area from a practical viewpoint should be diagnosed and treated by the general practitioner surgeon. It is not good therapy to transport a patient with acute appendicitis or any acute abdomen any long distance.

Acute appendicitis still is an infectious disease which will not respond to any treatment other than early diagnosis followed by the necessary appendectomy. The antibiotics have no effect on acute appendicitis other than to mask the disease and thereby delay the early diagnosis. While observing an abdomen in which acute appendicitis is a possibility antibiotics and sedatives should not be administered. An antibiotic would normally be passed on to the appendix, but in a diseased appendix it would not get into the organ due to stasis and blockage of blood vessels in the appendix.

Embryologic Development — The embryological development of the appendix is of practical interest because it shows us that the appendix can be any place within the abdomen and sometimes even extra-peritoneally! Normally the development is as follows: In an embryo of five weeks the intestine is a simple tube beginning at the stomach and ending in the cloaca which is already starting to split off a separate rectal canal (See figure 1594 B, Page 197, Arey) The only recognizable divisions of intestine at this stage are the duodenum and the remainder of the intestine which bends ventral in the midplane and midway receives the attachment of the yolk stalk. The portion of intestine above the yolk stalk is designated the cephalic limb; the portion below—the caudal limb. As the embryo increases in size, ventral flexing of the intestinal loop becomes more marked and the attachment of the yolk stalk discontinues. A bulging in the caudal limb indicates the cecum. The distal blind end of the cecum continues to lengthen but it early lags in thickening and as a result the appendix is distinct from the cecum. At this time a torsion of the intestine about the superior mesentery artery occurs. A rotation of 180° anticlockwise occurs with the original caudal limb shifting to the left and caudad. As development proceeds with protrusion of the small intestine into the umbilical cord and consequent withdrawal a con-

tinued rotation carries the cecum across to the right side close to the crest of the ileum. Failure of this rotation could then explain any location of the appendix.

The Appendix—The appendix in a normal state is a very benign looking organ. In the inflamed state it is a very wicked looking organ. The appendix is a portion of the intestinal tract and has a lumen with mucosal lining but for some strange reason it also has a great deal of lymphoid tissue in the wall with muscle and then serosa surrounding this. The mesoappendix contains the appendiceal artery which is usually located at the base of the appendix. The taeniae coli of the cecum usually meet at the point where the vermiform appendix begins and at times this little anatomical point may aid in locating the appendix.

Diagnosis (History)—Diagnosis of acute appendicitis is at times very easy and due to this ease at times the unwary physician may later wish someone else were in his shoes. A typical history is as follows: The patient arises in the a.m. with a slight sense of not being well. No breakfast is wanted (anorexia). A slight pain develops in mid epigastrium (pain). The patient may then become nauseated and vomit (nausea and vomiting). This pain becomes more severe and shifts to the right lower quadrant (shift of pain). The pain then localizes to one point (point tenderness). Temperature may be elevated slightly at first and later on, as the process becomes more acute, be higher. (However, the temperature may be 98.6° and a gangrenous appendix be present.) Pulse rate is usually elevated. Abdomen: rigidity of recti muscles with point tenderness and rebound tenderness demonstrated by having patient cough and then placing one finger where the pain is most intense. Rectal or pelvic examination may show tenderness in one point. However, pelvic and rectal examinations do not show anything unless the appendix lies low in the pelvis (as far as appendix is concerned). Iliopsoas sign may be positive. An acute retrocecal appendix will usually show more pain and tenderness in the flank and posteriorly.

Atypical Appendicitis— In atypical appendicitis the history may be altogether different. Patient may begin with what appears to be a gastroenteritis with nausea and vomiting, followed by diarrhea and then a week or so later develop a localized point tenderness in the right lower quadrant or wherever the appendix may lie and still have diarrhea.

Another atypical history may be as follows: Patient may start off with what appears to be an upper respiratory infection with sore throat, then develop nausea and vomiting followed by abdominal pain which becomes more severe and then localizes. Other atypical forms of acute appendicitis may show a history as follows: Pain may begin in the back or costovertebral angle and act as if it were a genito-urinary disease. There may also be an acute appendix occurring in the left side due to the embryological development.

Laboratory—The urine is usually negative; however, it may show some leukocytes and red blood cells at times. Albumin may be present especially if the patient has been vomiting and has become dehydrated. Clumps of pus in the urine usually means that the appendix is not the offending organ. Numerous red blood cells also usually

mean that the appendix is not the cause of the pain. However, if the acute appendix should lie very close to the bladder or the ureter it is possible that the urine could show clumps of pus and red blood cells. White blood count is usually elevated to around 12,000 to 15,000 with an elevation of polymorphonuclear cells. However, an acute gangrenous appendix may be lying in the abdomen with a normal white blood count.

Operation—The incision should always be adequate. ("Small incision—small surgeon.") The incision should always be made over the area of maximum tenderness as usually the appendix is close to this point. With a male patient in whom diagnosis is fairly certain a McBurney muscle splitting type of incision is advisable. With an adult female, the McBurney muscle splitting incision is not recommended. Here a right rectus or midline incision is preferred.

In opening the peritoneum if the blade is turned at an angle instead of cutting straight in the chance of opening anything except peritoneum is less. This is a simple maneuver, advantageous in children. The cecum should be located and picked up with Babcock or long ring-mouthed forceps. The cecum can then be gently grasped with a wet laparotomy pad and gentle downward traction exerted and then upward traction with the index finger of the opposite hand guiding the appendix out of the opening in the peritoneum. Usually this simple maneuver brings out the appendix without trauma if gently done and saves a great deal of searching time. If the appendix is not found right away check retrocecally and then check taeniae. If the appendix is not found then it may be necessary to dissect the cecum, making an incision laterally in the posterior parietal peritoneal wall in an attmept to locate a retroperitoneal appendix. (Also check left lower quadrant of abdomen.)

The post-operative care is simple if the diagnosis is not delayed. Early ambulation is advocated (within 12 hours). Antibiotics are usually not necessary. A full diet is tolerated by the second day. With early ambulation no post-operative enema is usually required. Sutures are removed the fifth day and patient usually sent home at this time.

Summary

Patients with acute appendicitis should not be transported long distances. They should not be given antibiotics or sedatives while they are being observed in the tentative diagnosis stage. Embryological development determines location of the appendix. History may be atypical. Treatment is early diagnosis and immediate surgery. Operation is simple when incision is adequate. Post-operative care usually easy if early ambulation allowed.

114 South Gay Street

Experiences Using A Chloral-Amphetamine-Mephenesin Mixture In Elderly Patients

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Phoenix, Ariz.

For the past few years there have been marketed several preparations using a combination of three well known drugs, an amphetamine type drug, mephenesin, and one of the barbiturates. With the recent revival of chloral hydrate as a sedative it naturally follows that sooner or later a preparation would appear using chloral in place of the barbiturate. This study concerns just such a preparation.

The preparation was made up in capsule form and had the following composition:

RESULTS

Pt.	Age	Sex	Effect Formula 101	Formula 101 less chloral	Formula 101 less mephenesin	Amphetamine alone 5 mg.	Side effects
1	72	male	made nervous	noticed no change	noticed no change	noticed no change	ground teeth
2	81	male	couldn't sleep	noticed no change	noticed no change	noticed no change	walked floor all night
3	60	fe.	very slight lift	noticed no change	noticed no change	noticed no change	clenched jaws
4	64	fe.	made more nervous than she was	noticed no change	noticed no change	noticed no change	restless sleep
5	71	fe.	nervous	noticed no change	noticed no change	noticed no change	restless sleep
6	77	fe.	nervous	noticed no change	noticed no change	noticed no change	restless sleep
7	62	male	nervous	noticed no change	noticed no change	noticed no change	restless sleep
8	70	fe.	nervous	noticed no change	noticed no change	noticed no change	restless sleep
9	63	fe.	felt better	noticed no change	noticed no change	noticed no change	restless sleep
10	73	male	nervous	noticed no change	noticed no change	noticed no change	restless sleep
11	89	fe.	nervous	noticed no change	noticed no change	noticed no change	restless sleep
12	84	fe.	nervous	noticed no change	noticed no change	noticed no change	restless sleep
13	91	male	no effect	noticed no change	noticed no change	noticed no change	tossed more in sleep
14	70	fe.	nervous	noticed no change	noticed no change	noticed no change	restless

d-amphetamine sulfate	5 mg.
Mephenesin	200 mg.
Choral hydrate	200 mg.

At present this capsule bears no name. It is referred to as "Formula 101"* by the manufacturer.

The first batch of these capsules was tried on a mixed group of patients ranging in age from eighteen to sixty-two years. The patients all developed a feeling of "increased pep" on taking the capsules. However, no definite conclusions could be drawn.

The effects of all the ingredients are well known so no time will be wasted in rehashing some obvious pharmacology. Since these capsules contained chloral hydrate, it was thought they should be better for the elderly patient who does not tolerate barbiturates well.

A second batch of capsules was made up and tried on a series of fourteen patients ranging in age from sixty to ninety-one years. Three similar capsules were also made up leaving out one or both of the other drugs.

From the above chart I think it is fairly obvious that the effect of this preparation is due to the amphetamine. The chloral and mehpenesin are either present in too small quantities or are too weak to counteract the stimulation produced by the amphetamine.

* Person & Covey of Glendale, California.

Conclusions

A preparation containing amphetamine, mephenesin, and chloral was tried on a series of patients. Its action is due to the amphetamine. The amounts of chloral and mephenesin are too small to produce any modifying effect on the amphetamine.

Since old persons do not tolerate amphetamine too well, and since the other drugs do not assuage the stimulation of the amphetamine, this combination is not suitable for use on elderly patients. On younger patients the preparation is not so objectionable in its side reactions. But since the action is due almost, if not entirely, to the amphetamine, the other two drugs are superfluous and just add to the cost of the manufacture.

20 West Riverside Street

Treatment of Acne Vulgaris

H. BURESCH, M.D.
Montgomery, Ala.

The different methods used in the treatment of acne vulgaris are as yet only partly successful. Therefore this skin disease is still a considerable problem for the physician as well as the patient, to whom it is often also a psychological problem. The illness itself and mode of treatment are sufficiently described in text books and literature and need not be discussed here in their well known details. This paper is concerned only with a different method of treatment which definitely appears to be more successful than others. The results are given below in figures but not in percentage because the latter can be misleading where the number of cases is not at least around one hundred or more.

Of the 80 cases reported here 62 are to all practical purposes healed out. Of the remaining, 16 are much improved, so that the patients themselves were satisfied and considered their skin "cleared." (2 cases had poor results but were improved.) The span of time in which the above results were obtained varied individually from about 10 days to four weeks. New nodules rarely form after the first few days of treatment, but those already present in the deeper layers of the skin proceed to the pustule stage before they heal out.

For a more exact test only such cases have been chosen here which have had previous treatment, without results, somewhere else.

To find a more satisfactory solution to the problem in question such factors were taken into consideration which, aside from the glandular, are found also in other pathological conditions of adolescence. One of these factors is gastric anacidity and hypoacidity. Consequently gastroanalysis was performed in twenty-three cases, showing anacidity in 8, hypoacidity of varied but pronounced degree in 12, and normal values in 3. A repeat analysis of these last 3 cases with normal values, performed a few days later, showed then low acidity in 2 of them. That acidity values can fluctuate is known, and therefore it is also likely that of those with hypoacidity one or the other might have shown normal values at another time had these tests been repeated. However, anacidity or hypoacidity was by far prevalent. On these grounds *all* cases, regardless of values found (and, later on, regardless if gastroanalysis was done or not), were given

hydrochloric acid. In fact, insufficient acidity seems to be the fundamental cause, therefore the taking of HCl in itself might have been sufficient treatment in most cases, but practical experience proved that the addition of vitamins speeded up considerably the time of recovery or healing, as did care of skin, both as outlined below.

Diets have not been prescribed except that the patients (nearly all adolescents) were, wherever necessary, reminded to eat meals at regular times and also to eat whatever was served for all members of the household. Meat, as essential food factor, should be stressed. Generally any supportive medication previously used by the patient was discontinued.

As already mentioned, injections of vitamins proved to be definitely of help though may be not absolutely necessary. Best results were obtained with thiamine hydrochloride (dosage shown to the right), which was selected on grounds of experience and used in higher than usual doses. Each case received the same amount per dose (but not per duration of treatment). A solution containing 100 mg. per cc. was used and of this 1.5 cc. was given intravenously two to three times a week. Of the 80 cases discussed here, none was, or became later during the course of treatment, sensitive to the doses or to mode of injection. In cases treated for other causes such doses have, on very rare occasions, produced sensitivity after several injections, none with serious results. Symptoms were nausea (passing quickly) and, once, a skin eruption similar to those seen after penicillin and controlled by Benadryl in 24 hours. The vitamin dosage appears high and there seems to be no apparent reason why it could not have been given either by mouth or subcutaneously but results showed definitely that the intravenous route is much more effective. The reason for this fact is unexplained, though it is to be considered that here the action of the chemical likely does not rest in its essential as food-complement of which a many times smaller amount suffices but in a medicinal action of the drug which might explain the high dosage required.

All 80 cases received uniformly the same routine treatment, with only occasionally minor individual changes. The treatment and medication, shown in the table herewith, was prescribed for all of them:

Here has to be added that most pa-

1. ORAL MEDICATION

℞

Dil. hydrochl. acid	10.00
Fe. elixir*	60.00
Essence of Pepsin q.s.	180.00
Add: Thiamine hydrochloride	1.00
Para-amino-benzoic acid	1.00

S.i.q. teasp. f. in water t.i.d., p.c.
*If prescribed as ferrous sulfate 4.0
The vitamins were added last to avoid direct contact with the HCl.

2. BY INJECTION

150 mg. thiamine chloride i.v. Three times weekly for 1 week, during the second week twice, only once in the 3rd and 4th week.

3. DIRECTIONS FOR SKIN CARE

At bedtime wash with soap and warm water, rinse with cold water, apply thinly an ointment, composed approximately of colloidal sulfur 1%, calx-sulfurata 54%, and zinc sulfate 23%. (A product made by Kelgy Lab, trade name Sulpho-Lac, was quite satisfactory.) In the morning rinse with cold water and dust lightly with prescribed powder.

Any shaving talc, preferably skin colored, can be used, with 5% powdered sulfa drug added. The latter to combat and/or/to prevent secondary infection with pus germs.

tients with acne also suffer from dandruff because of their seborrheic skin. This condition, if based on seborrhea, responds to the above medication when given with any effective recipe for the scalp.

Summary

Better than average results have been obtained in treating acne vulgaris by correcting gastric anacidity which seems to be present in a great majority of the cases. Supportive treatment, as outlined, is of definite help.

One might object that 80 cases are a small number from which to draw conclusions. To this is to be said: First, that several times this number of patients have been treated with equally good results but are not included in this paper because in the beginning no exact records were kept. The reason for this has been that such favorable results were not expected. Detailed notes were made only later when the results accumulated seemed to make it worth while to report on them. And second, the simplicity of the treatment will make it easy for any colleague to give it a try and publish his findings which then should confirm or contradict the above report. In this way the number of cases reported on by others could within only a few months run into the hundreds.

492 South Court Street

Doctors' Hobbies

"No man is really happy or safe without a hobby," said Osler, and we believe that all doctors agree with him.

In a survey of notable medical men known to have been hard hobby riders, the *J.A.M.A.* (Oct. 8, 1953 and July 4, 1953) cites Auenbrugger of percussion fame and writer of an opera ("The Chimney Sweep"), Boerhaave, cultivator of chamber music at his home, Jenner, of vaccination fame, violinist and flute player, Bartholin, authority on flutes, oboes, English horns and clarinets, von Hemholtz, versatile musician and author of a treatise on the physiologic basis of tonal sensations, Billroth, an excellent pianist, Borodin, composer of operas and symphonies, Albert Schweitzer, great organist; Pasteur and Charcot, notable artists in the pastel field, A. Graeme Mitchell, painter and etcher, and the poets Keats, Coleridge and Goethe. To these should be added such practiced anatomists as Leonardo da Vinci, Michelangelo and Raphael. Outstanding authors have been Somerset Maugham, A. J. Cronin, A. Conan Doyle, Arthur Schnitzler, Eugène Sue, Anton Chekhov, William Carlos Williams, Francis Brett Young, Joseph Hergesheimer, and A. S. M. Hutchinson. Into this galaxy of hobbiests and avocationists we wish to introduce one who is perhaps the most colossal of medical personalities—Sigmund Freud. Freud loved to collect antiques; Charles Poore,

noted critic, said of his hobby: "It was a fitting hobby for a man whose life work was the changing of some of the most stubbornly held prejudices of antiquity. Sort of like Henry Ford superseding the horse and buggy and then preserving the beguiling artifacts of the horse and buggy era." (New York Times, Oct. 16, 1953).

Osler thought that it makes precious little difference what the outside interest may be—botany, beetles or butterflies, roses, tulips or irises; fishing, mountaineering or antiquities—"Anything will do so long as he straddles a hobby and rides it hard." Osler justified its pursuit because "One cannot practice medicine alone, and practice it early and late, as so many of us have to do, and hope to escape the malign influences of a routine life. The incessant concentration of thought upon one subject, however interesting, tethers a man's mind in a narrow field. The physician needs a clear head and a kind heart; his work is arduous and complex, requiring the exercise of the very highest faculties of the mind, while constantly appealing to the emotions and finer feelings."

We don't think the relationship between art and medicine too baffling a problem; why so many physicians turn to the world of art as an avocation seems to us to be because the practice of medicine is itself an art. The gratification that comes when a practitioner *creates* a cured patient is surely closely akin to what the artist feels when he *creates* a satisfying painting. It seems to us that the American Physicians Art Association, with its annual exhibition, is an indispensable outlet for the creative impulses of the profession.

Sculpture seems not to have commanded the interest and effort of physicians to anything like that of painting. A man of the finest achievement in this domain of art, however, was Dr. Alexander J. C. Skene, famed gynecologist of the Long Island Medical School. A fine example of his work is the bust of Marion Sims in the Library of the Medical Society of the County of Kings, Brooklyn, N. Y.

A hobby is a source of fun and play. Winston Churchill, himself a distinguished painter, says that people who need and seek hobbies may be broadly divided into three classes: those who are worried to death, those who are worked to death, and those who are bored to death. Certainly many doctors can qualify under the first two of these items. Who has not been concerned at times to observe some of our supermen working incessantly under worrisome circumstances and not seeking sufficient respite by way of hobbies among other things, and who has not felt a grateful sense of relief when one finds such a colleague making perhaps a model train?

We shall cite a few instances having to do with the hobbies of some of our esteemed contemporaries.

Malford W. Thewlis, noted internist, editor and geriatrist, of Wakefield, Rhode Island, is an amateur magician of parts. At the age of seventeen, being the owner of a printing press, he obtained an order for some printed directions needed by a professional magician, S. Wilson Bailey, for his catalogued effects. For this printing work, Bailey instructed young Thewlis in magic, gave him apparatus which started him on a full evening show, and even on one occasion joined the Thewlis show. We say show, because Thewlis

New Gem Theatre

PLYMOUTH

THEWLIS MAGIC SHOW

PRESENTING

"THEWLIS"

Programme, PART 1

Overture ..... Selected
Cosmopolitan Orchestra, L. E. Gould, director

"THEWLIS"

In a series of Surprises, including Old Glory, A Game of Billiards, Modern Egg Manufacturing, Table Lifting, Spirit Slates, Aladdin's Ladder, Handkerchief Manipulations, etc.

PART 11

"THEWLIS" introducing a display of digital dexterity in card and coin sleights. Also the Flying Cage, Mysterious Duck, Haunted Skull, Welsh Rabbit, Ten Ichi Thumb Tie, &c.

PART 111

EMPIRE TRIO, [Messrs. Gould, Holland and Thomas] Musical Comedians, presenting many new down-to-date novelties, in an act entitled, At the North Pole.

PART 1V

"THEWLIS" in the Challenge Handcuff Act and closing with the Crated Trunk Mystery.

put on a series of performances the proceeds of which financed his Bowdoin medical studies. Much of his extramural work was done by the entertainment of private parties, and he was sometimes part of the Bowdoin Minstrels or Dramatic Club shows, but he seems usually to have been a whole show in himself.

Thewlis' interest in magic has never ceased throughout his distinguished medical career. He subscribes to every magic journal, has a library rich in works on the subject, belongs to the leading magic associations, keeps up associations with the leading professional magicians, keeps his equipment up to date, and takes postgraduate lessons from experts who are introducing new technics.

Doctor Thewlis has found this ancillary art useful in his practice as a psychological tool. With its aid, he finds he can divert the attention of patients from their worries. They need a little diversion oftentimes, when ill from economic and real worries. "Magic is good, clean amusement," says Thewlis; "the best clinicians I have ever known used some kind of diversion to make the patient and his family less tense."

Some of the old handbills, advertisements and programs of his shows around 1907-8 when he was barnstorming in Boston, Wickford, Plymouth, Camden, Narragansett, Lewiston, Portland, Bath, Westerly, Wakefield and Brunswick form an interesting collection. He seems to have excelled as a handcuff expert and jail breaker. The police departments were unable to keep him locked up. A favorite publicity stunt upon arrival in a town was to challenge the cops to detain him by means of boxes, coffins, bags, wool sacks, ropes, seine nets, trunks, etc. His jail

escapes took about four minutes. Thus the *Brunswick* (Maine) *Record* published the following certificate from L. H. Colby, police chief of the town, after Thewlis' jail break: This is to certify that Thewlis escaped from the cells at the Brunswick police station, after being thoroughly searched, part of his clothes placed in cell No. 1, a part in No. 2, while Thewlis, with my handcuffs locked behind him, was placed in No. 3, each of these cells being locked by Yale locks. He walked out in exactly four minutes with his clothes on, entirely free. Brunswick, Maine, Nov. 11, 1907. Witness Charles Lavigne.

THE CAMDEN, MAINE, HERALD, 1907

CAMDEN OPERA HOUSE

Christmas Day

The Great

"THEWLIS"

Magician, Handcuff Expert and Jail Breaker.

AN EVENING OF FUN AND MYSTERY

Latest Sleight of Hand.
Challenge Handcuff Act.
Pillory Escape.
Paper Bag Escape.
Wool Sack Trick.
Trunk Mystery.
And Others.

Matinee 3 P. M. **Evening 8:15 P. M.**

Everything Clean, Classic, Pleasing.

Reserved Seats 35c. **Admission 25c.**

Seats on sale at Mixer's.

No reserved seats in the afternoon.

Dr. F. Donald Napolitani, of New York City, makes a hobby of installing interesting things in his waiting room, one of his displays consisting of pipes from all over the world, each having a story connected with it, and all hung in a framed compartment against a velvet background. In an article by Dr. Napolitani which appeared in the *New York State General Practice News* (May, 1953) he makes a number of suggestions, regarding the best ways of displaying ceramic work, photographs, masks, coins, stamps, ship models, chess pieces, etc. His most interesting suggestion is that two or three oil paintings be hung in a waiting room and *changed about once a month*. This will startle the man whose waiting room boasts only magazines of ancient dates.

Philately is the hobby of Dr. Nunzio Rini, of Brooklyn, whose pride and joy has to do with special issues of postage stamps struck off by the governments of the world in honor of physicians. Outstanding in Dr. Rini's collection of about 750 such stamps are the ones honoring Walter Reed, William T. G. Morton, Crawford W. Long, Gorgas and Finlay.

We quote Dr. Bernard J. Ficarra, Brooklyn surgeon, on his own hobby as follows, with some general remarks by him on the subject:

"All work and no play results in a dull person. To be proficient in one thing is not the sign of a genius, but to be proficient in many things may be indicative of ability above the common level. Most professional men strive for perfection in their chosen work. Excellence in this one endeavor often results in a narrow outlook in life with a loss of appreciation for the other things in the world about us. The doctor more than any other professional individual is a victim of his own life's work. His leisure hours are passed in reading medical journals, his evening hours are consumed at meetings and his Sundays

are given over to medical rounds.

"For a doctor, therefore, the development of a hobby is most essential, not only for relaxation but for mental happiness and physical health. Fortunately many doctors have a hobby of some type. For example, a distinguished surgeon of my own acquaintance is an expert in breeding rare birds. Another is a renown authority in photography. Still another is the owner of rare antique glass. Many physicians have interested themselves in painting and sculpturing. All these hobbies are expressions of a healthy mental outlook. No matter what the hobby may be, all men of medicine should possess one. Preferably one that is far removed from their own daily work would serve the better purpose.

"One of my own hobbies is collecting statues. Originally I collected only bronze statues. More recently I have become interested in marble (Parian) and works in ivory. These art objects vary in size from miniatures to life size figures. Most of these I kept in my study, but as the collection increased in quantity I scattered them in selected corners throughout the house so that they became part of the interior decorations of the rooms.

"As one becomes more involved in this hobby the collector becomes selective and may limit his collection to certain type of figures as busts or mythological figures. Depending upon the collector's outlook his collection will be in keeping with his own temperament. Personally, I have followed in part the dictum of William Morris who stated: "Have nothing in your home which is not useful or beautiful." I have collected statues which were not useful but were always beautiful to my own eyes. After all every eye forms its own beauty.

"Among the items in my collection are two statues originally given by Emperor Franz Josef of Austria to a member of his court for a wedding gift. Another bronze is a bust of Napoleon Bonaparte cast by Canova. The sculptor Canova was commissioned by the French government to make the official busts of Bonaparte when he was made First Consul of France. Two other figures in this collection were awarded the Prix de Paris and another the Prix de Rome. An interesting figure is called Victory and commemorates the founding of the French Republic in the 18th Century. Several pieces by the distinguished French sculptor, E. Picault, are part of this collection. The central

PORTLAND EVENING EXPRESS
WEDNESDAY, NOVEMBER 10, 1909

BARS OF STEEL CAN'T HOLD HIM

When Harry Houdini, the celebrated expert handcuff king was first seen in Portland it was thought that no one else could duplicate the tricks. Thewlis, however, who has been a student at Bowdoin College, and at present is in Portland attending the Bowdoin Medical College has made quite a name for himself in that branch of the mysterious art besides doing quite a "stunt" as an exponent of legerdermain. He is, however, not following that line of work on account of the large amount of time that it takes for his medical studies.

Thewlis has escaped from many different jails of the Country and here in the State of Maine has done much work along that line. In speaking of his work in Bath recently the Bath Times said:

"Thewlis, the Bowdoin College medical student, who has gained some little reputation for himself by being a 'jail breaker' demonstrated his ability at the local police station last Saturday afternoon. He was placed in one of the steel cages in the rear, his hat placed in another and his sweater in another and all the doors secured. The two outside corridor doors were also securely locked on the outside and the door leading to Water street also happened to be locked.

"The officers went into the lounging room and waited. In 12 minutes there was a telephone message from a local drug store and Thewlis was at the other end. He had passed through seven doors and the officers are wondering how he did it."

Thewlis is a member of the Y. M. C. A. and very much enjoys the work. He is a pleasing young man to meet, and possessed of a charming manner has made many friends while in the City.

figure of the entire collection is a large bronze figure of Mercury.

"Egyptian bronze is represented by an ancient bronze water jug and two full length bronze sphinxes. In the European group are two bronze Etruscan 16th century bells. The original of one of these is in the Sforza museum in Milan. One Russian piece is listed among the statues. The Russians never perfected any technique in bronze. For this reason one does not find many Russian bronze statues. They have made a few statues of cast iron. A work of this type is found in the collection under discussion. The subject of this statue is a Cossack on horseback with a second Cossack in pursuit. These figures are cast in iron.

"The marble group consists of various size figures of the Venus de Milo, Dante, Joan of Arc, Beatrice and Charles Dickens. Only one bust of Wedgwood, obtained in England, is found in this group.

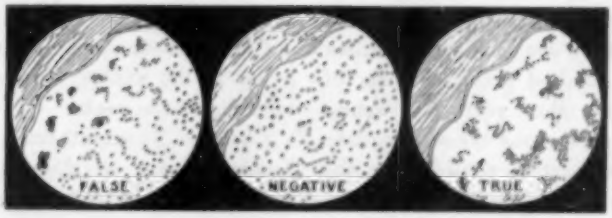
"Among other interesting pieces are a mandarin incense burner (17th century, an Etruscan ink-well (18th century), a figure of an amputated Crimean soldier and an 18th century jewel box from India. The African group consists of ebony figures of the natives and ivory statuettes from South Africa. An Arabian curved dagger from North Africa encased in a wooden scabbard of inlaid wood completes the collection.

"One may ask. What intrinsic benefit is served by a hobby of this type? In addition to the relaxation and other benefits mentioned previously, many of these works are things of beauty. As the poet John Keats has written: 'A thing of beauty is a joy forever. Its loveliness increases. It will never fade to nothingness.'"

A.C.J.

Editor's Note — The MEDICAL TIMES *would be pleased to receive for publication descriptions of other physicians' hobbies.*

Clini-Clipping



Scale for reading results of microscopic agglutination tests.

Clinico-Pathological Conferences

New York University-Bellevue Medical Center Post-Graduate Medical School, Department Of Medicine at Bellevue Hospital, Fourth Medical (N. Y. U.) Division

PATIENT H.P.

Third Bellevue Hospital admission of a 53-year-old white male railroad worker admitted 1/19/53 with a—

C. C. "Cold—at least 2 months and possibly more." History not good.

Previous Hospital: B. H.—1940—Alcoholism. B. H.—1943—Alcoholism Acute and Chronic, Gastritis and Portal (?) Cirrhosis.

P. I. For two months prior to admission, the patient noted a cough productive of whitish, mucoid sputum. For 5-6 weeks he noted a pain in the right lower chest, aggravated by inspiration and marked sweating with chills (?? as to whether they are shaking). Patient claims that he had previous bouts of "pleurisy" in other years but denies any tbc. A chest x-ray taken 3 months p. t. a. was negative according to the patient. Patient admits to heavy drinking of all types of alcoholic beverages until 1-2 years ago. Denies any recently. Weighed 178# during the summer. Presently 135#.

P. H. and Review of Symtoms not available as patient was not clear. G. C. at age 15.

Physical Examination —*T 101 P 100 R 24 B. P. 120/70*

A Negro male appearing acutely and chronically ill but not dyspneic, orthopneic or cyanotic.

Head, E. E. N. T. Bilateral corneal thickening and scarring. Pupil on left reacts to 1 and a. Blind on right. Trachea deviated to right. Veins flat. Teeth carious in mouth. Tongue papillated and moist. Several discrete left supraclavicular, bean-sized nodes on the left, non-tender.

Glands—Bean-sized non-tender, firm nodes in the axillae, inguinae and the left side of the neck.

Chest — Symmetrical expansion. Lungs-Dullness to flatness over the lower ⅓ of the right lung anteriorly and posteriorly with diminished fremitus and breath sounds. Medium moist and crepitant rales above this area. Heart—PMI felt at the MCL in the 5 i. c. s. Sounds good. A soft apical sys-

tolic murmur is heard at the apex.

Abdomen—Liver felt 3 f. b. below the right costal margin, firm, irregular, non-tender. Spleen and kidney not felt. No other masses.

Trunk—No costo-vertebral angle tenderness or edema.

Rectal—Normal prostate. No masses felt.

Extremities—No clubbing, edema or cyanosis. Pulses present bilaterally.

Neurological—Reflexes present and active. Negative Babinskis. Patient walks with a wide gait.

Hospital Course—All through the hospital stay until demise the patient had a temperature ranging as high as 104 and not infrequently down to 97. There seemed to be a cyclic character with temperature being low-grade for approximately 1 week and then spiking 2-3 x daily and remaining between 104 and 101 for 6-7 days. Penicillin, Streptomycin, Aureomycin and Terramycin all were administered the first 2 months of hospitalization but were without effect. Streptomycin was given for only 3 days between 1/23 and 1/27.

1/23—Attending Notes. A chronically ill patient with evidence of weight

Laboratory Data

Urinalysis

Date	Color	S. G.	Ph.	Alb.	Sugar	WBC	RBC	Other
1/21	Amber	1.017	Ac.	Neg.	Neg.	5-10		
2/19	Cloudy	1.010	Alk.	20 mgms	%			
3/9	Yellow	1.011	Alk.	30 mgms	%	many	none	

Blood Counts

Date	Hb.	Rbc.	WBC.	Tr.	P	L	M	E	B	Smear	ESR	Hct.
1/19	9.0	4.05	5.9	6	65	18	10	1		Mod. Hypochrom.	23	33
2/10	8.0	4.34	12.7	10	52	20	7			Target Cells Polychromatop. hylia	63 m.m./hr.	
3/6	10.0	3.91	8.9	3	73	19	5					

Blood Chemistries

Date	Sugar	NPN	CO_2	A/G	Chol/Esters	II	C.F.T.	Alk. Phosph.	Phos. Acid.
1/21		28		3.2/3.0			0	15.4	
1/30						9		18.0	
2/3				3.8/3.0	178/80	12		14.2	
3/25					194/97	9	0	13.2	
4/17				2.7/3.3				12.2	

1/21—Mazzini 4 plus
" Wassermann—1 plus
" VDRL—Positive 1-2

2/4 —Mazzini 4 plus
" Wassermann 0
" VDRL—Pos. Undil.

loss. Dullness to flatness at right base, diminished breath sounds and many fine, subcrepitant rales. Over the right middle lobe, there are distant breath sounds with crepitant rales. Liver is enlarged and nodular. Because of finding of Friedlander's Bacilli in sputum, recommend therapy with Streptomycin and Gantrisin.

1/30—Patient continues to spike temperature. Liver nodular and tender. Possibly the Friedlander's bacillus was from infection of the biliary tract. Recommend studies of sensitivity of the bacillus and therapy accordingly. Patient's cough had improved. Lung signs as before. X-ray reveals some infiltration in the right lower lung field but no fluid—also a high right diaphragm.

2/6—Fever continues. Recommendation made to do liver biopsy. Progressive weakness, anorexia and weight loss. Weight 131#.

2/9—Liver biopsy done. Re-examination reveals a hard mass deep in the left upper quadrant which moves with respiration and can be palpated through to the back when patient lies on the right side. It is felt to be distinct from the liver and does not feel like spleen.

2/11—I. V. P. and Retrograde Pyelograms as well as Pre-Sacral Air Insufflation done by G. U.

2/11—until demise on 5/7—The patient became progressively worse. Massive ascites developed requiring repeated paracenteses until death. Preterminally, the patient was incontinent of urine and feces, disoriented and hyperkinetic.

Stools with Guaiac—1/19 Sl. Pos.

Sputum Culture—1/23 — Friedlander's—Type A. & B Proteus; 1/26—Friedlander's—Type A. & B Proteus; Sensitice to Aureomycin, Terramycin and Chloromycetin.

Blood Cultures—No growth.

X-Rays—Chest—1/22—Slight haziness in right paracardiac region. 1/28—Minimal infiltrate in 2nd R. I. and over right diaphragm. High liver.

Colon—2/9—Negative.

I. V. P. 2/16—Renal pelvis and calyceal system normal. Left upper urinary tract incompletely visualized.

G. I. #1—2/27—Negative.

Bone Survey—3/9—Osteoarthritis of dorsal spine.

Ascitic Fluid

4/6—Milky without change on standing. S. G. 1.015. Protein 3%. Smears show lympho and leukocytes. Negative with Sudan 111.

Case presented from the wards of the Fourth Medical Division, Bellevue Hospital, Dr. Charles Wilkinson, Dir.

Pathological Findings

At autopsy, the peritoneal cavity contained about 5,000 cc. of turbid fluid. The liver was greatly enlarged (3,200 grams.); it was studded with innumerable large nodules of metastatic tumor, only a small portion of the right lobe was free of tumor; while the portal and hepatic veins were grossly patent, a moderately large hepatic vein radicle was found histologically to be occluded

by an organizing thrombus. The thrombosis was undoubtedly the result of occlusion of the vein by tumor somewhere along its course. The fact that the hepatic metastases were so widespread probably accounted for the clinical signs of portal vein obstruction (particularly the considerable ascites). Metastatic nodules were also found in the lungs, stomach, adrenals, peritoneal surfaces, and many lymph nodes. There was also a large retro-peritoneal tumor mass, contiguous with a single tumor nodule in the lower pole of the left kidney. No tumor was found in the right kidney.

Despite the multiplicity of metastases, there was little difficulty in establishing this case as one of primary *carcinoma of the left kidney*. This diagnosis was supported by the facts that the tumor here was a single nodule and that there was no tumor in the opposite kidney (metastases in a given organ are usually multiple). Histologically, most of the metastases formed glands. However there were some areas which were distinctly sarcomatous in appearance. This is a frequent finding in carcinoma of the kidney.[1]

The left pleural cavity contained about 700 cc. of clear fluid. There was a moderate degree of atelectasis in the left lung a result of the pressure of the pleural fluid.

1. Rupert A. Willis: The spread of tumors in the human body. Butterworth & Co., London, 1952 (2nd Ed.) p. 73.

PATIENT C.M.

Third Bellevue Hospital admission of and 81-year-old white male Swiss-born ex-roofer, admitted 9/9/52 with a:

C. C. "Nausea and vomiting—12 hours."

Previous Admission

1940—Bellevue Hospital — Brachial plexus neuritis-left arm. Discharged as improved after 11 days. B. P. 150/70.

1938—Common cold. B. P. 130/80.

1937—Cataract removal of right eye.

P. I. For six months prior to admission, the patient had been followed in O. P. D. where he received small white tablets for chest pain. These tablets gave immediate relief when taken.

24 hrs. p. t. a.—Went to bed early without eating because of lack of appetite. Developed substernal pain unrelieved by three successive nitroglycerin tablets. Fell asleep after a period of time and awakened without pain.

12 hrs. p. t. a.—Felt well and went out for breakfast and on return to room became nauseated and vomited stomach contents. Experienced mild "heart burn" but no pain. Unable to keep any food down that morning though water was well tolerated.

6 hrs. p. t. a.—Walking to the movies, he fainted. An ambulance was called and patient again fainted when walking out of the ambulance at the hospital.

Review of Symptoms—Fainting episodes on two occasions in previous six months. Once several months ago and once 6 days p. t. a. Cut forehead with fainting spell the first time.

E. N. T.—Frequent sinus trouble.

C. R. For 6 months dyspnea with

exertion. No edema or orthopnea. Dry cough for several months.

G. I. No complaints.

G. U. Frequency and nocturia three to four times.

P. H. Married. Smoked 1 cigar daily. No alcohol. In U. S. A. 68 years. Once told of hypertension by a private physician but not in recent years. Intermittent claudication in 1938 which improved after administration of vascular exercises. Able to walk 20 blocks, at least, after that.

F. H. Unknown.

Physical Examination *T 98.6 P 60 R 32 B. P. 115/60*

A pale elderly white male in no acute distress and without complaints.

Skin—Warm, moist with some pallor. No icterus or cyanosis.

Head, E. E. N. T.—Right Iridectomy. Left-Corneal opacity. Left pupil reacts to light and accommodation. Tongue smooth on edges.

Glands—No enlargement.

Neck—Moderate venous distention.

Lungs—Increased A. P. diameter. Scattered medium rales at left base.

Heart—Enlarged P. M. I. in 6 i. c. s. A2 equals P2. M2 greater than M 1. Sounds of poor quality. No murmurs. Not infrequent premature beats with compensatory pauses (12/min) which cleared spontaneously.

Abdomen—Tympanitic. Bowel sounds active. No fluid wave or shifting dullness. No liver, kidney or spleen felt.

Rectal—Sphincter tone good. Hard feces in ampulla. Prostate enlarged 1 plus.

Back—Trace of edema. No c. v. a.

Laboratory Data

Urinalysis								
9/9	S.G.	1.015,	Alb. neg.	Sugar neg.			WBC-occ.	
9/15	"	1.020	" Tr.	" neg.	Acetone neg.		" 5-6	
Blood Counts								
9/9	Hb.	14.5	RBC. 4.5	WBC. 15,000	Tr. 6, P 84, L 9, M 0, E 1, B 0, Hct. 41			
9/19	"	13.5	WBC. 7.6		Tr. 15, P 68, L 12, M 5, ESR 50 mm/hr. Hct. 11			
10/2	WBC.	6.5			Tr. 9, P 70,		ESR 50	
9/10	N.P.N. 35 mgms. %							
9/19	Creatinine 1.6 mgms. %							
9/24	Creatinine 1.2 mgms. % Protein A/G 3.9.2.2 Alk. Phosphate 4.8 B.U.							
Serology	9/10 Mazzini and Wass. 4 plus. V.D.R.L. Pos. 1-10 9/21 " " " 4 plus. V.D.R.L. Pos. 1-5							
9/9 Venous Pressure—Antecubital Vein—18's m.m. H20 Circulation Time Decholin—70 secs.								

E.K.G.—9/16 Changes suggestive of posterior wall infarction.

9/26 Q waves in 2, 3 and avf. Persistent elevation of S.T. segment in these leads. PR interval 0.16 secs.

9/29 PR interval 0.28 secs. Depressed ST segments in precordial leads. Inverted T waves in V5 and 6. Q waves in 2, 3 and AVF and elevated ST segments persist.

or spinal tenderness.

Extremities—1 plus ankle edema. Pulses good. Hands and feet less warm than body.

Neuromuscular—Physiological.

Hospital Course The patient received the following medications: Mercurydrin 2 cc. on 3 occasions. Digitoxin—1.8 mgms. orally and i. v. in the first 24 hrs. Maintenance dosage—0.2 mgms. daily. Potassium iodide-Saturated Solution-ten gtts. tid and aminophyllin suppos. 0.5 gms. nightly. Low salt diet.

House Notes—9/13 Patient comfortable. Lungs clear. One plus ankle edema. Liver felt 2 f. b. below costal margin. P-60/min c. rare p. v. c.

9/17—B. P. 120/50 Occasional slight substernal discomfort. Neck veins flat. Grade 2 systolic murmur at the apex. T 100.2.

9/22—Comfortable. Liver no longer felt. B. P. 120/70.

9/28—Anorexia noted. Feeling of nausea at intervals with occasional vomiting of stomach contents. No chest pain. Rales heard at right base with decreased resonance. No sacral or ankle edema. Liver not felt. Legs normal. T° normal (taken only 1x daily).

10/16—Patient had continued to have slight nausea but no other discomfort. Note states that patient suddenly expired while in bed with no description of terminal event.

Case presented from the wards of the Fourth Medical Division, Bellevue Hospital, Dr. Charles Wilkinson, Dir.

Pathological Findings

This patient's sudden death was accounted for by the extension of a recent fresh thrombus, which occluded the right coronary artery. There were large areas of fresh, healing, and completely healed infarction involving chiefly the posterior wall of the left ventricle and the posterior interventricular septum near the base of the heart. The areas of infarction also extended for a short distance into the posterior wall of the right auricle and ventricle. There was moderately severe atherosclerosis in all the coronary arteries, but, aside from the thrombus described above, the only point of marked narrowing was in left main coronary artery, 4 mm from its origin. Severe narrowing of the coronary arteries, when strategically located, may be sufficient to cause infarction even in the absence of thrombosis.[1] Since no organized thrombi were found, this probably accounted for the healed infarcts. It is of interest that the older healed infarcts apparently occurred without clinical manifestations.

Fibrinous adhesions were present over the posterior epicardium. An organizing thrombus was found in the right auricular appendage.

1. H. L. Blumgart, M. J. Schlesinger, and D. Davis: Studies on the relation of the clinical manifestation of angina pectoris, coronary thrombosis, and myocardial infarction to the pathological findings. Am. Heart J. 19, 1, 1940.

Salivary Calculi

Calculi are common in the ducts of the submaxillary glands, but are rare in the ducts of the other major salivary glands, the parotids and the sublinguals. They may be found in the ducts and/or the glands themselves.

Anatomy The major salivary glands are six in number—three on each side. The *sublingual* is the smallest, and lies just behind the symphysis of the mandible, on top of the mylohyoid muscle. It has several small ducts opening separately into the mouth under the tongue; the main duct enters the mouth with the submaxillary duct (Figure 1).

The *submaxillary* is larger and lies behind and lateral to the sublingual, both above and below the edge of the mylohyoid. Its secretion runs in the long submaxillary duct of Wharton, which opens into the mouth at the sublingual caruncle adjacent to the frenulum of the tongue (Figure 1).

The *Parotid* lies on the masseter muscle just anterior to the ear. Its secretion is carried in Stenson's duct, which traverses the cheek and opens into the mouth opposite the upper second molar tooth (Figure 1).

Etiology Infection is usually considered the cause of salivary calculi, calcium salts being deposited around a bacterial nidus as a result of a change in the pH. Various organisms, including saprophytic actinomycetes, have been isolated from calculi. Trauma and foreign bodies, with their resultant inflammation, may also be responsible for the development of stones.

Symptoms Although the symptoms are characteristic, the condition is often misdiagnosed as lingual neuralgia, toothache, lymphadenitis, cancer, etc.

A stone in the duct may cause complete or incomplete obstruction, usually of an intermittent nature. Obstruction of the duct causes a backing-up of the secretions, with distention of the duct and gland. This results in pain, which may be colicky, and a palpable swelling in the region of the gland (Figure 2).

The symptoms are most marked at mealtimes when there is functional engorgement of the gland. Citrus fruits stimulate an excessive flow of saliva, and often produce marked symptoms. With intermittent obstruction, salty saliva is often discharged into the mouth with subsequent relief of symptoms.

If the obstruction persists, a diffuse enlargement of the gland results, from fibrosis and lymphocytic infiltration.

Diagnosis Examination during an attack of pain reveals a tender swelling along the course of Wharton's duct on the involved side. The gland, too, is commonly swollen. There may be purulent drainage from the duct, and the orifice (sublingual caruncle) may be reddened.

The stone usually lies in the anterior two-thirds of the duct, and can be easily palpated along the course of the duct if one finger is placed inside the mouth and the other hand is placed under the jaw to push the floor of the mouth upward.

Since most salivary calculi are radiopaque, x-rays usually reveal their presence and position. Several views, taken through the mouth and from the outside, are often required (Figure 3).

Sialography is often of help in locating stones that are not readily seen on routine x-rays. The duct and its ramifications within the gland are visualized by x-rays taken after the injection into the duct orifice of two to three cubic centimeters of Lipiodol by means of a syringe apd cannula.

Differential diagnosis should include stricture of the duct, Mikulicz's disease, inflammation of the gland (sialadenitis) without stone, Boeck's sarcoid, mixed tumors (most common in the parotid, but occasionally involving the submaxillary and sublingual glands), and neoplastic involvement of the submaxillary lymph nodes.

Treatment Removal of the calculus is the treatment of choice. This is easily accomplished if the stone is large and is in the anterior two-thirds of the duct. Procaine or Xylocaine is infiltrated into the region of the duct for anesthesia.

An incision through the mucous membrane and duct is made over the stone, in line with the duct. The stone is lifted out, and the duct is irrigated. The mucous membrane may be sutured with fine silk, or preferably, left open. In the presence of infection, the wound should always be left open. Warm

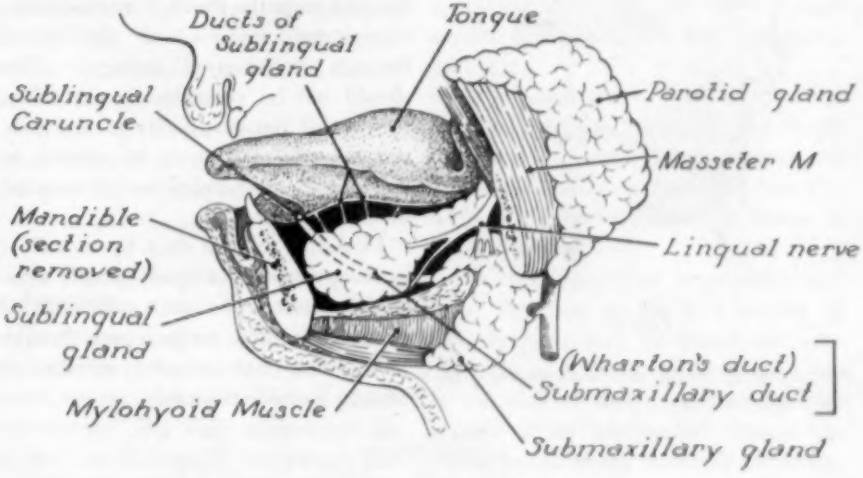


fig 1

Schematic drawing of major salivary glands showing their location (part of parotid gland and Stenson's duct not shown).

mouth washes are advisable for three to four days. In most cases only a little sedation is needed post-operatively.

If the stone is small and movable, it is advisable to place a suture around the duct on the gland side of the stone, and pull up on this to occlude the duct and prevent the stone from slipping back toward the gland during removal. The suture is cut out at the end of the procedure.

Another useful method of removal of a stone close to the orifice of the duct is to place two #000 silk sutures in the duct wall at the orifice. These are held taut and the duct is opened with a fine scissors from the orifice back to the stone.

fig. 2.

Appearance of patient with swelling of right submaxillary gland.

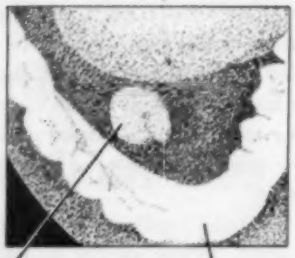


fig. 3

Drawing of x-ray, showing large calculus in right submaxillary duct (Wharton's duct).

A stone in the parotid duct is removed in the same manner, with incision through the buccal mucosa and duct over the stone.

A stone in the posterior one-third of the duct or in the gland, if symptomatic, necessitates excision of the gland through an external incision. This should not be attempted in the office, because of the vascularity of the area, and the vital structures in relation to the gland. Hospitalization is essential for a safe operation.

Dilatation of the duct by means of graduated tear duct probes will occasionally stretch the duct sufficiently to permit the stone to pass out through the orifice, but surgical excision is usually more satisfactory.

EDITORIALS

Industry's Aid to Medical Schools

Colby M. Chester, chairman of the committee of American Industry devoted to raising $10,000,000 extra annual income for our seventy-nine medical schools, reports notable progress.

Mr. Chester's committee is affiliated with the National Fund for Medical Education.

Sixty nation-wide industry divisions have been set up with 1,019 business men serving, while twenty-three committees in industrial centers have mustered 312 more leaders.

Without a doubt these dedicated forces will insure the schools' solvency and survival—a marvelous service to medicine and the nation itself.

Some Public Health Beginnings in America

The Pilgrim Fathers suffered severely from scurvy in the course of their Mayflower voyage and early New England experiences. But they understood its therapy very thoroughly, as witness Edward Winslow's letter of December 11, 1621, advising prospective emigrants to New England what to bring with them—"Bring juice of lemons," he wrote, "and take it fasting; it is of good use."

Was this therapy original with Winslow? It was not, because we know that orange and lemon juice had been employed by the Dutch as early as 1564 (Ronssius), also in the voyages of Sir Richard Hawkins (1593), and by Commodore James Lancaster (1600).

Perhaps the earliest reference to the disease itself was that in connection with Jacques Cartier's second expedition (1535). Drake, in his 1580 voyage around the world, also had to contend with it.

As bearing further upon the medical knowledge in the field of public health possessed by the Pilgrim Fathers we quote the following from the late Edward E. Cornwall's Medical Notes of Early New England:

"In the legislative enactments and court decisions of the first settlers of New England may be found not only examples of political enlightenment far in advance of their age, but also examples of an enlightened regard for public health which may well excite the admiration of the present age. Two instances of such legislation are here given. A magistrate in the early days of Plymouth refused to marry a couple unless the man would bring to him

certificates from two physicians, to the effect that he did not have the 'falling sickness.' In 1630, the year of the settlement of Boston, a Massachusetts court rendered the following judgment: 'Nicholas Knall is fined 5 L for taking on himself to cure the scurvey with a water of no worth or value, which he sold at a very deare rate, to be imprisoned until he pay the fine or give security for it, or to be whipped, and shall be liable to any man's action of whom he has received money for the same water.' "

Before Applied Science Comes the Dream

We said in a recent editorial (The Role of Imagination in Science) that imagination is a necessary ingredient in creative thinking.

Pasteur said that "Preconceived ideas are like searchlights which illumine the path of the experimenter and serve him as a guide to interrogate nature. They become a danger only if he transforms them into fixed ideas. . . . Imagination is needed to give wings to thought at the beginning of experimental investigations in any given subject." This quotation was invoked by Rivers in his 1950 address before the New York Academy of Medicine (Concepts and Methods of Medical Research). And in the course of the same address Rivers called attention to Max Planck's defense of the ivory-tower worker. Planck said that "the first step, the moulding of the world picture from its beginnings in ordinary experience, is the task of pure science. . . . Never reproach the scholar too harshly for his otherworldiness and the indifference to important problems of human society. Without such a one-sided attitude, Heinrich Hertz could never have discovered radio waves, or Robert Koch the tubercle bacillus."

The ivory tower is imagination's citadel.

The Narcotics Dilemma

The serious proposal at the annual meeting of the New York State Medical Society to make the use of Narcotics by addicts legal and cheap discloses a major curse of American society in all its sordid significance. This counsel of despair reveals the desperate dilemma of our bewildered culture.

The continued increase of crime in the United States is definitely related to addiction, since the great costs of narcotics necessitate grand larceny. The investigations and reports of the FBI have established all the relevant facts. It costs an addict many thousands of dollars in the black market to supply his needs, and there are at least 50,000 addicts.

The aforesaid proposal envisages the establishment of hospitals staffed by specially commissioned physicians, assuring every addict a supply at a reasonable price. It is supposed that the illegal supply would dry up.

The Harrison Act has not enabled enforcement agencies to stamp out the illegal flow of narcotics.

However, the Federal Narcotics Commissioner, Harry J. Anslinger, scoffs at the panicky idea of legalized addiction, since it was tried in the early Nineteen Twenties and then led to increased addiction and crime.

The truth appears to be that we are impaled upon the horns of a dilemma not amenable at present to any remedy.

RHINOLARYNGOLOGY

L. CHESTER McHENRY, M.D., F.A.C.S.*

The Treatment of Severe Progressive Epistaxis by Radiotherapy

J. P. Stewart and J. D. Sammon (*Journal of Laryngology and Otology*, 68:82, Feb. 1954) report 8 cases of severe and progressive epistaxis treated by x-ray radiation. Seven of the 8 patients were males; there was one patient with essential hypertension; there was no history of ill health or high blood pressure in any other case, and no history of previous attacks of epistaxis in any case. No premonitory symptoms, such as headache or "spotting" had been noted before the severe bleeding from the nose began, usually in the morning; the bleeding could not be controlled and the patients were sent to the hospital. The hemoglobin percentage shortly after admission to the hospital varied from 30 to 60 per cent, and in 5 of these patients was below 40 per cent; the blood pressure was low in all cases. In 5 cases blood transfusion was necessary before the radiotherapy was begun. A standard high voltage x-ray equipment was employed; two lateral fields directly opposite to each other on each cheek were used, so that the entire nasal cavity was included in the beam; the eyes and lips were shielded with lead. Both fields, measuring 6 x 6 cm. were treated each day, five daily treatments were given each field, giving a minimum central dose of 2,000 r within a week. In every case the bleeding ceased before the completion of the five-day treatment; in most cases there was no further bleeding after seventy-two hours. The first case in this series was treated in 1951; in all but one case treatment was completed over a year ago; the most recent case was treated six weeks before the time of this report. The epistaxis has not recurred in any case; the patient most recently treated has since been given an anticoagulant drug because of symptons of coronary thrombosis, but there was no bleeding from the nose, although bleeding from the bowel did occur. In this case a dose of only 500 r—250 r in two applications—was employed. In most cases the only skin reaction was erythema; in one case there was dry desquamation; in all instances the skin reaction disappeared within a short time, leaving the skin entirely normal. Most of the patients stated that they had a "dry nose" for a few months after

McHenry

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treatment: all had mild headache for a short time, and one a temporary loss of smell. The bleeding was from the nasal septum in all these cases; after treatment biopsies were taken from the septum in 6 cases. These biopsies showed that the chief effect of the radiotherapy had been to produce marked fibrosis and thickening of the tunica adventitia in the blood vessels in the deep stratum of the submucous layer of the nasal septum, with narrowing of the lumen. As indicated by the results noted in the most recently treated case, a smaller dose of radiation than was used in the earlier cases would probably be effective.

COMMENT

So far as we are aware no one in this country has reported the use of x-ray for its effect upon persistent epistaxis. Bleeding from the nasal septum can almost always be controlled by mechanical means and by sedation of the patient. The effect of x-ray seems to produce fibrosis and thickening in the blood vessels. The authors do not mention the effect on the epithelium. Having in mind the important function of the epithelium of the nasal mucous membrane in nasal physiology, we seriously question the necessity of x-ray therapy to the nose for the control of epistaxis.

—L. C. McH.

Excitation of Infection in Respiratory Foci by Bacterial Nucleoproteins or Vaccines

F. A. Stevens *(A. M. A. Archives of Otolaryngology,* 69:198, Feb. 1954) reports that 21 adult patients with asthma and subacute ethmoidal and maxillary sinusitis were given polyvalent bacterial filtrates modified by strains obtained from antogenous cultures. These inoculations were begun shortly before or after the antral openings were enlarged surgically and while the sinuses were being irrigated. In 11 cases the infection apparently became worse when a certain level of dosage of the filtrate was reached; the nasal mucous membrane was more swollen, and there was an increase in the purulent exudate. When the dosage was reduced, these symptoms disappeared. In the other 10 patients no such symptoms were observed. The 11 patients who showed symptoms in response to inoculation with a certain dosage of bacterial filtrate, had had symptoms of asthma for only a few months, and their histories and nature of the exudate obtained in the irrigating fluid, indicated that their infections were subacute, rather than chronic, possibly exacerbations of some previous but unrecognized antral disease. Seven of these 11 patients had had symptoms of allergy in childhood; none had had clinical evidence of allergy in adult life, except for ragweed hay fever in 5 cases, during which their sinus infections occurred. It is evident that "catarrhal vaccines" or other preparations of respiratory bacteria containing nucleoproteins must be "administered judiciously" in subacute infections of the upper respiratory tract in order to avoid aggravation of such infections.

COMMENT

We agree with the author's conclusion that vaccines when used for therapy in subacute infections in the upper respiratory tract must be administered judiciously. The author's experience indicates that such treatment made a number of these infections worse. Therefore, why use it at all? —L. C. McH.

Intrinsic Cancer of the Larynx

W. L. Mattick and A. J. Marcini *(A. M.A. Archives of Otolaryngology),* report results of treatment in 86 cases of intrinsic cancer of the larynx treated at the Roswell Park Memorial Institute, Buffalo, N. Y., in 1942 to 1949. Before 1942, all cancers of the

larynx, both intrinsic and extrinsic, were usually treated by radiation at this Institute, only a few cases being treated surgically. After 1942 intrinsic cancers of the larynx were treated more frequently by surgery—laryngofissure or laryngectomy. A brief review of the symptoms in these cases of intrinsic cancer of the larynx shows that the chief and earlier symptoms were hoarseness, pain in the ear on the side of the laryngeal tumor and respiratory stridor; hoarseness is not an early symptom of extrinsic laryngeal cancer. In establishing the diagnosis, direct laryngoscopy as well as the mirror, was employed, and also biopsy. Operation was done in the more differentiated types of carcinoma, in cases without clinical neck node involvement, and when the general condition of the patient did not contraindicate surgery. Radiation therapy was employed in those cases with anaplastic tumors or definite neck node metastases, for patients who refused surgery, or whose general condition contraindicated operation. In the cases without neck node involvement, 36 per cent were free from recurrence five years or more after treatment, whether by surgery or radiation; while there were only 4.5 percent five year cures in those with neck node involvement. Five year cures were obtained in 71 per cent of the cases in which operation was done; in "a less highly selected group" of cases, radiation therapy resulted in five-year cures in 18.7 per cent; but in a more favorable group of cases treated by radiation in which tracheotomy was not necessary, there were 25 per cent five-year cures. With either surgery or radiation, the percentage of three-year cures was definitely higher than the percentage of five-year cures; an additional mortality "as high as 10 per cent" may be expected during the fourth and fifth years after treatment of intrinsic cancer of the larynx. Surgery is the treatment of choice in the treatment of intrinsic cancer of the larynx unless far advanced; but in far advanced and recurrent postoperative cases, radiation holds the "commanding position for palliation."

COMMENT

There is variation in the policy regarding the choice of surgery or radiation for cancer of the larynx from one clinic to another depending upon the aggressiveness and experience of the surgeons and of the radiologists and upon the degree of cooperation between them. The authors would seem to feel that radiation is advisable unless the cancer is probably curable by simple laryngectomy or laryngofissure. —L. C. McH.

Contact Ulcers of the Larynx

D. C. Baker, Jr. *(Laryngoscope,* 64:73, Feb. 1954) reports a study of 19 cases of contact ulcer of the larynx, all the cases of this type seen by him in a period of sixteen years, indicating that the condition is rare. Contact ulcers usually develop in a patient without any local or general illness, although occasionally a history of a cold or cough may precede the development of the ulcer. The most characteristic symptom of contact ulcer of the larynx is "a sharp sticking" pain in the region of the upper corner of the thyroid cartilage, which is aggravated by swallowing. With mirror laryngoscopy, the typical ulceration with or without granuloma is seen at the tip of the vocal process on one or both sides. As other lesions may present a similar appearance, especially carcinoma and tuberculosis, these conditions must be ruled out by biopsy and an x-ray study

of the chest before the diagnosis is established. In one of the author's series of 19 patients, the diagnosis of carcinoma in an early stage was established by biopsy of a superficial ulcer over the tip of the right vocal process. Treatment with x-rays in this case resulted in a six-year recovery with an excellent voice. Before 1947, treatment in the author's series of cases consisted in "absolute" vocal rest; occasionally local excision of granulation tissue was done with cauterization of the base of the ulcer. Most of the patients showed good results from the treatment, but were "disturbed" because of the long treatment necessary to obtain such results. Since 1947 all patients with contact ulcer of the larynx have been given speech therapy, by a qualified speech teacher; as a psychological factor is involved, a careful selection of the speech teacher for each patient is necessary. With this method good results are obtained in about two months.

COMMENT

We congratulate the author on obtaining good results in about two months even when he has the help of a qualified speech therapist. We agree that the speech therapist can be of tremendous help. Within our own experience it has been very difficult to get the patients to follow through with the speech therapist and accept his advice. —L. C. McH.

Topical Therapy of Disturbances of the Upper Respiratory Tract

B. M. Cohen and R. Mendelsohn *(Laryngoscope,* 63:1118, Nov. 1953) report the use of a new preparation for topical application (Biomydrin) in the treatment of 50 cases, including 9 cases of atrophic rhinitis, 19 cases of allergic rhinitis, 13 cases of subacute or chronic rhinitis and 8 cases of sinusitis. Byomydrin contains a vasconstrictor (phenylephrine hydrochloride), an antihistamine (thonzylamine hydrochloride), two antibiotics, Gramicidin and Neomycin, and thomzonium bromide (to reduce the viscosity of the nasal secretions). Eleven of the patients were treated in the hospital; the others were ambulatory; the method of self administration of the drug was taught to each patient, or to the parents of infants and young children. In cases where much exudate was present, this was aspirated on each visit to the clinic. The Biomydrin was instilled into the nose as drops in young children; older children and adults preferred the use of a nasal spray. The clinical response to the treatment was good in 26 cases, or 52 per cent; it was temporarily good but improvement lasted only while treatment was being continued in 16 or 32 per cent; improvement was "fair" in 3 cases; and only 3 cases failed to show any improvement. In both atrophic rhinitis and allergic rhinitis, which are not primarily due to infection, pathogenic organisms were found to be present in many instances, and improvement was noted when the infection was cleared up by the use of Biomydrin; in the majority of the cases of allergic rhinitis, the improvement was not long maintained after treatment was stopped. Potentially pathogenic organisms that were present in the nasal cultures before treatment were not present after treatment in 42 per cent of cases; Gram-negative organisms persisted more frequently than Gram-positive organisms. The use of Biomydrin was well tolerated; only one patient complained of irritation from its use; no other ill effects were observed. While Bio-

mydrin was particularly effective in the treatment of rhinitis and sinusitis due to infection with "susceptible" organisms, it also gave definite relief of allergic symptoms, a relief which was "relatively prolonged."

COMMENT

This would seem to be an intranasal medication to take the place of all other intranasal medications. It has an antihistamine, a vasoconstrictor, two antibiotics and a detergent. The authors seem to have used it in any and all varieties of nasal ailments. We have been impressed by the remarkable ability of the nasal mucous membrane to tolerate various and sundry insults of one sort or another. However, we still question the wisdom of applying antibiotics, antihistamines, etc., to an already abnormal nasal mucous membrane. Atrophic rhinitis does as well when washed out with saline as it does with some more complicated medicament. Allergic rhinitis will tolerate local medication for a short time only and then usually is made worse by continued local medication. In other words, we are inclined to be a little critical of the rationale of this type of therapy. —L. C. McH.

OTOLOGY

L. CHESTER McHENRY, M.D., F.A.C.S.*

Dihydrostreptomycin and Deafness

J. K. Lees and D. M. Markle *(New York State Journal of Medicine,* 53:2997, Dec. 15, 1953) report a study of the hearing of 60 patients in a tuberculosis sanatorium who were receiving or had been given dihydrostreptomycin in a dosage of 1 Gm. two or three times a week. While the exact incidence of deafness due to treatment with dihydrostreptomycin has not been determined, earlier studies, when the drug was given in a dosage of 1 to 2 Gm. daily, indicated "a very high incidence" of deafness due to the drug, which was often irreversible. Of the 120 ears examined, only one perforation of the tympanic membrane was found; 2 patients had had a mastoid operation; occasionally a slight to moderate thickening of the tympanic membrane was noted, but most of the patients had normal ear drums. This, the authors note, is in contrast to the frequency of otitis media in tuberculous patients before streptomycin was used in treatment. Of the 60 patients, 7 were excluded from further study, because they had had either tuberculous meningitis or a mastoid operation; all of these patients were over sixty-five years of age. An audiometric screening test was done on the remaining 53 patients; 31, or 58.9 percent, failed to pass this test. Further study of these cases showed that the hearing loss was of the perceptive type for the higher frequencies, 4,096 and 8,192 cycles per second, except in one case in which there was a 25-decibel loss at 2,048 cycles per second. This type of high frequency deafness was not "demonstrably handicapping" in any case. Further study of the degree of hearing loss in these patients showed that it could not be correlated with age of the patient, the total dosage of dihydrostreptomycin, the time since the drug was discontinued, the dosage of PAS given concomitantly, or the previous use of streptomycin (in 12

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cases). This study shows that with the smaller dosage of dihydrostreptomycin now employed the incidence of deafness due to this drug is "markedly reduced," as compared with that when larger doses were customarily employed.

COMMENT

Certainly the effects on the ear will be less when a smaller dosage of dihydrostreptomycin is used. It has been our impression that streptomycin or a combination of streptomycin and dihydrostreptomycin has produced less untoward effects on the ears than the use of dihydrostreptomycin only. —L. C. McH.

Ototoxicity from Intermittent Streptomycin Sulfate Therapy of Pulmonary Tuberculosis

H. L. Cline and associates *(A. M. A. Archives of Otolaryngology* 64:100, Jan. 1954) report a study of the incidence of ototoxicity in 100 patients who were treated for pulmonary tuberculosis with streptomycin sulfate given intramuscularly in a dosage of 2 Gm. every third day for six months and then with 1 Gm. every third day for two months. Audiograms and vestibular tests of 32 of these patients showed signs of eighth nerve damage; in 12 there was hearing loss only, in 12 vestibular damage only, and in 8 both hearing loss and vestibular damage. The loss of hearing occurred in the "conversational frequencies" in only 10 per cent, being more frequent in the high tone frequencies. The damage to vestibular function was more marked in most instances than the loss of hearing. Follow-up studies were carried out in 21 of these 32 patients one to six months after the completion of the streptomycin treatment and showed that in 16 of these patients, there was a return to the pretreatment status of both hearing and vestibular function, and another patient showed definite improvement; 11 of these 21 patients had shown marked ototoxicity, and of these 8 showed a return to normal function. The majority of the patients in this series were young men with normal hearing and vestibular function before streptomycin therapy was begun. The low incidence of ototoxicity in this series of patients is attributed partly to this fact and partly to the method of streptomycin administration.

COMMENT

See comment on previous article. This report is of particular interest in that a very considerable number of these patients showed a return to normal function after there had been apparently definite ototoxicity.

—L. C. McH.

Therapy of Acute Purulent Otitis Media with Dibenzylethylenediamine Dipenicillin G

S. H. Walker *(Journal of Pediatrics,* 44:50, Jan. 1954) reports the treatment of 100 cases of acute purulent otitis media, diagnosed by "a red, bulging, tympanic membrane," in infants and young children with a single injection of 600,000 units of dibenzylethylenediamine dipenicillin G; in some cases a single injection of procaine penicillin G (300,000 units) was also given preceding or simultaneously. The additional "supportive" care in all cases included rest in bed until the child was afebrile, aspirin for pain or fever, a light diet, and Neo-Synephrine (¼ per cent) for nose drops. Incision of the tympanic membrane was not attempted and no spontaneous rupture occurred subsequent to the initiation of therapy. In these cases symptoms subsided within forty-eight hours, usually within twenty-four hours; the infection cleared up completely in every case, usually in

about four days; there were no serious complications in any case. The results were the same in the group given the single injection of dibenzylethylenediamine dipenicillin G alone, as in the group also given procaine penicillin G. The results in both groups were better than those reported by others with frequent injections of crystalline penicillin in acute purulent otitis media. The use of the single injection of "repository penicillin" obviates the difficulties of frequent injections; the single injection does frequently cause pain at the site of the injection, and tends to prolong any sensitivity reactions that may occur. But these are not considered to be serious drawbacks in view of the fact that the single injection of dibenzylethylenediamine dipenicillin G "constitutes effective therapy" of acute purulent otitis media.

COMMENT

Penicillin therapy with this long acting repository type of penicillin is undoubtedly quite valuable. If the author was able to diagnose "acute purulent otitis media" by the presence of "a red bulging tympanic membrane" we seriously question the wisdom of his method of therapy. The surgical principle that an abscess needs to be drained for the best results in regard to recovery, absence of complications, etc. has not, so far as we know, been seriously questioned. This applies to indications of pressure by purulent exudate within the middle ear and we feel that patients with a "red bulging tympanic membrane" should have myringotomy. The author was apparently extremely fortunate. In our experience when red bulging tympanic membranes are not opened in a large series of cases there will be a certain number of cases which develop acute mastoiditis and others which develop chronic changes within the middle ears which will be forever a handicap to the hearing in those particular patients.

—L. C. McH.

Unrecognized Cholesteatosis in Children

P. E. Meltzer *(Annals of Otology, Rhinology and Laryngology,* 62:1174, Dec. 1953) reports a study of 43 cases of cholesteatosis in children ten years of age or younger, seen at the Massachusetts Eye and Ear Infirmary (Boston, Mass.) in 1937 to 1952. From this study he concludes that in many cases the diagnosis is not made sufficiently early to save the hearing. Cholesteatosis is difficult to recognize, because symptoms are slight or absent in the early stage of the disease. In a typical case of cholesteatoma, the only symptom noted at first is an aural discharge; this is characterized by a foul odor, but may be scanty or profuse, may be continuous or absent for brief periods. Hearing may be normal for some time; any loss of hearing may not be detected in early childhood until the time of the routine hearing test or admission to school. The child may not be brought to the otologist until the discharge has persisted for some time; even then the findings vary; the drum membrane may be normal except for crusting in the region of Shrapnell's membrane; or there may be total destruction of Shrapnell's membrane. While perforations of Shrapnell's membrane and marginal perforations are most characteristic of cholesteatosis, the diagnosis of cholesteatosis should not be ruled out if a central or anterior perforation is found. An x-ray examination may aid in the diagnosis if there is sufficient erosion of bone, but operation should not be delayed if the x-ray is negative, when the clinical findings indicate that cholesteatosis is present and "a fair clinical trial" of medical treatment gives no relief. If the diagnosis is made sufficiently early, a modified radical mastoidectomy may be done, with preservation of useful hearing. Seven illustrative cases are reported.

COMMENT

The author explains very well why it is important that careful study be made of ears which have chronic drainage or which have intermittent foul drainage.

—L. C. McH.

Perceptive Deafness Treated with Vitamin B-Complex and Amino Acids—100 Cases

J. H. Childrey *(Laryngoscope,* 64:120, Feb. 1954) reports the treatment of 100 cases of perceptive deafness with vitamin B-complex, amino acids and histamine acid phosphatase in the last ten years. Composite audiograms were obtained in these cases before treatment was begun and an average of 9.79 months afterwards. A few patients reported improvement in tinnitus or some improvement in hearing. The audiograms showed an average increased hearing loss binaurally of 2.5 per cent after nine months in this group of cases. Audiograms on 5 untreated cases of perceptive deafness showed an average increased hearing loss of 12.8 per cent binaurally in two years. So that while the treatment did not result in improved hearing in the group as a whole, it may have "slowed the progress of the deafness," but perhaps not enough to justify the expense of treatment and the effort expended. Since World War II the incidence of perceptive deafness in young persons has increased owing to the increased number of young persons in the armed services and in "heavy industry" involving prolonged exposure to "intense noise." The results of the treatment employed in the 100 cases reported are considered by the author to be "disappointing," especially in view of the increasing incidence of perceptive deafness noted above.

COMMENT

An interesting bit of clinical research and we are inclined to agree with the author's reported disappointing results for this method of treatment of perceptive deafness.

—L. C. McH.

Correlation of Clinical Otitis Externa with Mycobacteriological Studies

Norman Leshin (A. M. A. Archives of Otolaryngology, 58:716, Dec. 1953) reports a mycobacteriological study of the external auditory canal of 73 normal ears, and of 113 cases of otitis externa of different types. In the normal ears, the organism most frequently found was *Staphylococcus albus* (88 per cent); Gram-positive aerobic spore-forming bacilli were found in 33 per cent. These organisms are nonpathogenic. In the 113 cases of otitis externa, *B. pyocyaneus* was the organism most frequently found; fungi were found in 50 or 44 per cent; in a larger group of 162 cases of otitis externa studied subsequently fungi were found in 43 per cent. While the fungi were associated with other bacteria, they were found to be associated with *B. pyocyaneus* in only 33 per cent. While "no definite correlation" would be made between the clinical types of otitis externa and the mycobacterial flora in this study, the largest percentage of *B. pyocyaneus* in pure culture was found in the purulent exudate type, while a larger percentage of fungi were found in the chronic and recurrent types. The treatment of otitis externa must be considered "in the light of the prevalent organism" as shown in this study and other studies reported.

COMMENT

We agree with the author that treatment must be considered in the light of prevalent organisms.

—L. C. McH.

Medical Book News

Edited by Robert W. Hillman, M.D.

Medical Ecology

The Natural History of Infectious Disease. By Sir Macfarlane Burnet, M.D. 2nd Edition. Cambridge, Eng., The University Press, [c. 1953]. 8vo. 356 pages, illustrated. Cloth, $4.50.

An enjoyable story of the relationship of the organisms causative of the most common and wide-spread infectious diseases of man to the whole of their environment, considering man as just a part, though it be an important part of their life cycle. To a physician epidemiologist who is used to emphasizing the human aspect of this relationship, the turn about of point of view gives a surprisingly wider perspective to the whole problem.

The suggestion that organisms affecting a species of animal for long periods, finally bring about an equilibrium between the two because this is the only way by which the organism can survive, is interesting.

The story of the limitation of rabbits as pests in Australia by the use of the virus of Myxomatosis of rabbits, suggests the ravages which bacterial warfare might cause in a human population.

The whole book is excellently written without technical detail but covers quite thoroughly the principles of the epidemiology of parasitic diseases. The book is understandable to any intelligent layman and fascinating to the physician.

KENNETH G. JENNINGS

Healing Cults

Fool's Haven. By C. C. Cawley. Boston, House of Edinboro, [c. The Author, 1953]. 8vo. 210 pages. Cloth, $2.75.

In this fascinating novel the author has handled a delicate subject in a most masterly manner. A weakness of our health laws is pointed out through the medium of a touching story. The need of adequate legislation and interpretation of the law in the light of modern science is clearly demonstrated. This book deserves a wide distribution, and its message should be known to all.

JEROME WEISS

Embryology

Human Embryology. By Bradley M. Patten, Ph.D. 2nd Edition. New York, Blakiston Co., [c. 1953]. 4to. 798 pages, illustrated. Cloth, $12.00.

The second edition of this well known textbook has recently been made available to teachers and students of medical and pre-medical embryology. Many of the chapters are virtually unchanged

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from the first edition, which was published in 1946, but this should not be considered detrimental since only minor developments have taken place in recent years in many phases of human embryological study. The chapters which have been rewritten incorporate all of the important advances in the field. The major changes have been made in the chapters concerned with the development of the human embryo and its membranes, prior to and immediately following implantation.

There is considerable emphasis placed on anomalous development of the different organs and organ systems which indicates to students how this study has direct application to much of their clinical work. This is particularly true of the chapter on the circulatory system, which has been expanded to include a more detailed description of the developmental anomalies which can now be partially or completely corrected by the most recent advances in cardiovascular surgery.

Many comparisons between the early development of the human and pig embryo make this text very adaptable to human embryology courses which are of sufficient length to include a complete study of serial sections of the pig embryo or a comparable mammal in the laboratory. In shorter courses, where little or no time is allotted for laboratory work, which is a common situation in present day medical schools, the length of this book is somewhat of a disadvantage. This disadvantage, however, is certainly overcome to a large extent by the clear and interesting presentation of the material. This has characterized Professor Patten's writing in the past and is equally apparent in this book. In addition there are over 1400 drawings and photographs which serve as an excellent supplement for the text material.

GEORGE B. TALBERT

Anaesthesiology

The Management of Pain. With Special Emphasis on the Use of Analgesic Block in Diagnosis, Prognosis, and Therapy. By John J. Bonica, M.D. Philadelphia, Lea & Febiger, [c. 1953]. 4to. 1,533 pages, illustrated. Cloth, $20.00.

This prodigious work by an anesthesiologist is truly amazing both from the viewpoint of erudition and labor. It consists of three parts divided into 42 chapters. The first part is concerned with an exposition of the fundamental aspects of pain and includes five chapters on anatomy and physiology. The second part details the methods used in the management of pain from local infiltration and regional blocks to neurosurgical methods and consists of fifteen chapters. Part three deals with pain syndromes and contains twenty-three chapters. The whole volume is brilliantly planned, and executed with skill and thoroughness. The illustrations are particularly good, the vast majority of them being new. The book is enthusiastically recommended for its literary distinction and accuracy. The specialist and the general practitioner should find it an extremely useful aid in solving their myriad pain problems.

F. PAUL ANSBRO

Ophthalmology

May's Manual of the Diseases of the Eye. For Students and General Practitioners. Revised and Edited by Charles A. Perera, M.D. 21st Edition. Baltimore, Williams & Wilkins Co., [c. Rosalie A. May, 1953]. 12mo. 512 pages, illustrated. Cloth, $6.00.

This 21st edition of *May's Manual* adheres closely to the pattern set in previous editions. It includes consideration of cortisone and ACTH, antibiotics, and retrolental fibroplasia.

Though this book was and still is intended for the medical student and general practitioner, its true aim is to familiarize the reader with some of the many problems confronting the ophthalmologist. Its continued popularity is the best testimonial to its excellence as an introductory text.

Every book has its shortcomings and this book is no exception. Controversial data are often dealt with in positive fashion and therefore made to appear that they are proved to be true or reliable. Etiology often contains unproved reasons for diseases in question. Therapy includes measures which have questionable value such as dionin, subconjunctival injections, and tuberculin therapy. Withal, this book still remains the most popular manual on diseases of the eye.

EMANUEL KRIMSKY

Medical Economics

Doctors, People, and Government. By James Howard Means, M.D. Boston, Little Brown and Co., [c. 1953, The Author]. 8vo. 206 pages. Cloth, $3.50.

The main theme of this book is the author's belief that all the people have a right to receive the best medical service but they are not getting it. To elaborate on his opinion, Dr. Means discusses the practicing physician and his relationship to the hospital as well as the system of medical education and the responsibility that government has in assisting medical schools. He criticizes organized medicine for opposing such assistance. The author is not too satisfied with the present system of fee-for-service method of payment for medical care. He also opposes the per capita system practiced under the British National Health Service scheme. Group practice is advocated but only if it is desired by a practitioner or internist and not by a surgeon or specialist. He suggests that physicians should be on a salaried basis, preferably working through a teaching-hospital center. He takes issue with the present objection by organized medicine against the employment of physicians by medical schools or hospitals pointing out that under such circumstances patients receive the best medical care.

About half of the book is devoted to Dr. Means' opposition to the American Medical Association with whose policies he has disagreed during the major part of his medical career. He is a believer in medical insurance for comprehensive medical care which he maintains is provided by only a few insurance systems and not by the large number of voluntary health insurance plans. He also criticizes the A.M.A. for its opposition to any system which provides such care.

To the reader who is in agreement with his views the book is of interest. For physicians, the contents are a repetition of what they have heard and read on numerous occasions previously.

JACOB H. LANDES

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BOOKS RECEIVED FOR REVIEW

Current Therapy 1954. Latest Approved Methods of Treatment for the Practicing Physician. Edited by Howard F. Conn, M.D. Consulting Editors, M. Edward Davis, M.D., Vincent J. Derbes, M.D., Garfield G. Duncan, M.D., Hugh J. Jewett, M.D., et al. Philadelphia, W. B. Saunders Co., [c. 1954]. 4to. 898 pages. Cloth $11.00.

Wine as Food and Medicine. By Salvatore P. Lucia, M.D. New York, Blakiston Co., [c. 1954]. 8vo. 149 pages. Cloth, $3.00.

The Effect of ACTH and Cortisone Upon Infection and Resistance. Edited by Gregory Shwartzman, M.D. Symposium held at the New York Academy of Medicine, March 27 and 28, 1952. New York, Columbia University Press, [c. 1953]. 8vo. 204 pages, illustrated. Cloth, $5.50.

Streptococcal Infections. Edited by Maclyn McCarty, M.D. Symposium held at the New York Academy of Medicine, February 25 and 26, 1953. New York, Columbia University Press, [c. 1954]. 8vo. 218 pages, illustrated. Cloth, $5.00.

Carbohydrate Metabolism. Correlation of Physiological, Biochemical and Clinical Aspects. By Samuel Soskin, M.D. & Rachmiel Levine, M.D. Revised Edition. Chicago, University of Chicago Pr., [c. 1952]. 8vo. 346 pages, illustrated. Cloth, $8.50.

A Primer of Cardiology. By George E. Burch, M.D. 2nd Edition. Philadelphia, Lea & Febiger, [c. 1953]. 8vo. 339 pages, illustrated. Cloth, $5.50.

Zinsser's Textbook of Bacteriology. By David T. Smith, M.D., Norman F. Conant, Ph.D., Joseph W. Beard, M.D., Hilda Pope, Ph.D., D. Gordon Sharp, Ph.D. & Mary A. Poston, M.A., 10th Edition. New York, Appleton-Century-Crofts, [c. 1952]. 8vo. 1,012 pages, illustrated. Cloth, $11.00.

Investing For The Successful Physician

Prepared especially for Medical Times by Merrill Lynch, Pierce, Fenner & Beane, Underwriters and Distributors of Investment Securities, Brokers in Securities and Commodities.

Investment Plans—For Timing Your Investment

In our previous articles we stressed the importance of translating your individual investment requirements into an objective such as safety, income, or growth, of your capital fund. We considered the three general classes of securities—bonds, preferred stocks, and common stocks—pointing out the particular investment qualities of each.

Up to now, however, we've been primarily concerned with *what* to buy. The final question you will need to answer before actually buying securities to build your investment portfolio is simply: "*When* do I buy . . . and sell?"

"When," refers to timing. And the timing of your purchases and sales has aptly been described as being "the very heart of investment management." The most venturesome speculator understands it. The most conservative bond-buyer must consider it.

Timing By Analysis There are two general methods used by informed investors in timing their purchases and sales. The first method might be called analytical or rational—the investor decides on the basis of available facts that, "Now is the time." This is by far the most common timing method, used with considerable success by many and eminent failure by others.

Through the analytical method, the investor may consult many sources of information or none. As an investor he may carefully weigh hundreds of facts over a period of months before acting. Or as a trader, he may sit quietly in the boardroom of a brokerage office, eyes on the quotations being flashed from the floor of the New York Stock Exchange. Suddenly, mind made up, he may stand, hurry a few steps to the desk of his account executive and say: "Buy 100 GM at the market." Having

bought the 100 shares of General Motors he might sell it right back within the half hour as suddenly and with as little "analysis" as a half hour allows.

Using the analytical method, your purchases and sales often are made directly through a stock brokerage firm. You pay a standard commission for this service. You many buy in round-lots (100 shares for most stocks) thereby lowering your per-share commission costs. Or, you may buy in odd-lots, from 1 share to 99 shares.

Incidentally, this type of cash account with a brokerage firm is as simple to open as a savings account at your local bank. Certain standard credit information is generally required and that's all. At your request, most brokers will hold your securities in a vault until you wish to have them. Monthly statements will keep you up to date on your current holdings and remind you of any changes you may have effected in your portfolio during the month. Usually, no charges other than the standard commissions are made for these services.

"Mechanical" Timing The second method of timing your purchases and sales is often called *formula* investment.

There are literally so many formulas that it would be impossible to fully describe them in a single book much less a brief article. There are, however, two distinct types of formulas which can be described here.

The first is a formula which the investor follows to keep a particular balance in his portfolio between stocks and bonds. For example, he may elect to keep an approximate proportion of half his total investment in bonds, half in stocks. Thus, he may decide that at any time his stock value rises to 65%

Don't fall in love with a stock!

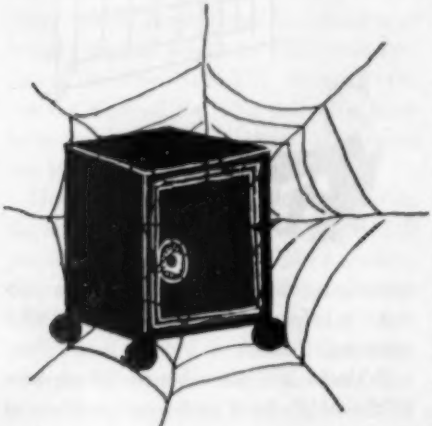
of his total portfolio value, he will sell stocks and buy bonds. And, if he finds his stock value decreases to 35% of his total portfolio value, he would buy stocks and sell bonds until he had reestablished the 50-50 relationship. This formula, of course, can be adapted to any percentage arrangement desired by the investor. We assume here that since stock prices have always gone up and down they will continue to do so. In other words, the investor shifts from volatile common stocks when his "mechanical indicator" tells him that a deflation has already taken place and that a rising price period may be in the offing.

This simple explanation makes this formula appear just about perfect. This, of course, is not the conclusion that should be drawn. The market, having taken your stock prices down to 35% of your total portfolio—might continue down immediately after you've bought more common stocks. Even more heartbreaking for the investor is to sell common stock at the 65% level of his

portfolio and then stand by watching the market continue to rise for months and months after the stock money has been put into bonds.

Another type of formula is to take your total investment capital and invest it at various levels of a market average, such as the Dow-Jones averages which are printed in many newspapers daily from coast to coast. Dow-Jones has three seperate averages made up of daily stock prices of a selected group of industrial, railroad, and utility companies.

If you were to use the Dow-Jones industrial average as the basis of your investment timing, you might follow a plan something like this: When the Dow-Jones average goes down to the 300 level, invest 25% of your capital. If it declines to 280, invest another 10% and so forth. You can choose your own levels all the way down. Also, you may set up levels for selling your stocks in a similar manner. This is a formula type often described as "averaging down" and "averaging up."



TIMING!
Don't forget your securities – they are perishable.

Many of the large investment funds follow a similar system based on careful analysis of the market levels over the years. The purpose, of course, is to invest more money at the "low" market levels and sell the largest percentage of your stocks at the "high" levels. Timing is automatic in that whenever the averages indicate, your purchase or sale follows.

All these percentage formulas (and there are hundreds which have been devised) have both virtues and vices that arise from the fact that they are mechanical. Their main virtue is that they protect the investor from being swept along in emotional whirlwinds. This is no small point either.

We all know that periods of depression are the times to accumulate property and that periods of boom are good times to sell. Many of us, however, do not have sufficient detachment to act rationally during these emotionally charged peaks and valleys. For the investor satisfied with conservative results, the mechanical formula can often help cut losses, facilitate the realization of gains. There is, however, no fool-proof formula.

Monthly Investment Plan One of the most practical of all stock-purchase plans for the accumulation of common stocks over a period of time is the recently approved, pay-as-you-go, plan of the New York Stock Exchange. This plan attempts to eliminate the need for timing decisions. The "mechanical" aspects of the plan, called MIP for

Monthly Investment Plan, are simple indeed. First, you decide how much money you want to invest in common stocks each month or, if you prefer, every three months. The minimum permitted is $40 a quarter. The maximum is $999 a month, but you can open more than one plan if you desire.

Next you pick any of some 1,200 stocks listed on the New York Stock Exchange.

After that, you merely mail your monthly or quarterly check and your stock will be bought for you at the first odd-lot price after each payment is credited. This price is the same as for any non-MIP investor buying the same amount (less than 100 shares) at a time.

The investor owns outright all shares *and part shares* his payment covers. And, he receives *part dividends on the part shares* as well as full dividends on full shares. You buy stock with every purchase, regardless of the price per share of the stock. MIP makes it possible for the first time to fully invest a given dollar amount in a specific security on a regular basis. As the Exchange puts it: "You can now buy stocks like gasoline—by the dollar—as well as by the gallon."

The investor in MIP puts his dollars to maximum use with each payment. He needn't wait to accumulate an even price for a full share or number of shares. He buys by the dollar's worth, gets full as well as part shares in the corporation he selects.

The key purpose of the plan is to enable would-be investors—who won't accumulate money for round-lot purchases, to acquire stock-holdings through regular payments. In addition, there is no obligation to continue your purchases. Investors can drop the plan at any time they choose, sell out when they wish or even skip a number of payments and remain in good standing.

It's true, of course, that investors try to accumulate funds on their own until they have enough for a lump sum, round-lot purchase. This means savings in commission costs.

But the MIP recognizes the psychological factor which makes it difficult for most of us to save regularly for some worthy but distant objective and not fall prey to repeated temptations en route. In fact, supported by monthly reminders sent out by brokerage firms

sponsoring the MIP, many investors declare it helps "force" them to *save on a consistent basis.*

Perhaps the most beneficial element of the MIP deals with our problem of "timing."

As J. P. Morgan once said: "The only safe prediction is that the market will fluctuate." Thus, no one ever can know for sure whether or not a single purchase will prove to be close to the stock's high price for a goodly time to come.

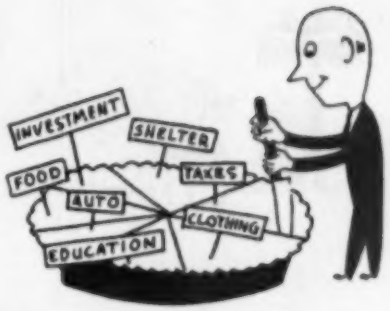
But with regular purchases spread

over a year or more, *the steady MIP investor averages his price.* In this he is helped by the mathematical law of what is called "dollar-cost averaging," automatically taken advantage of in the MIP.

This simply means that as long as you invest the *same amount of money each month,* regardless of what prices the stock sells for, you will buy some shares when the price is high but *more shares when the price drops.* Though we must realize the possibility of a market drop is always present, dollar-cost averaging in a declining market offers the opportunity of buying still more shares at the lower prices. *Provided the long-term, MIP investor continues* his regular monthly payments throughout the low-priced period, he will benefit by dollar-cost averaging.

Proof of this system of regular dollar investment was established in a recent study which showed that investors who bought typical stocks in 1929 and *continued to buy faithfully* through the market dips of the 30's and 40's, now have holdings worth about five times the total dollars invested.

However, the inevitability of market fluctuations points up the fact that MIP participants must accept some risks—like any investor, or any human. Thus MIP is not suited for everyone. Any participant should have at least some emergency reserves such as bank deposits and insurance. Furthermore, MIP is definitely not a get-rich-quick scheme. Nor is it designed for frequent trading activity. It is frankly intended for people who wish to acquire stock, by periodic purchases, for long-term investment—though of course they can always sell out in case of emergency or change of plan.



Since the plan is tailored for such objectives, it is natural that stocks to be bought under MIP should fit into this general pattern. Thus the wise MIP investor should pick stocks suited for long-term investment; a well-managed company in an industry with good growth outlook which, regardless of any temporary vicissitudes, should in all probability be in a still better spot a decade or so hence.

Lucky for MIP, there is no dearth of such companies in America. A special leaflet of 20 such growth stocks suited for long-term investment has been prepared and you may have it for the asking. The list includes:

Aluminum Co. of America	Goodyear
American Can	Gulf Oil
American Telephone	Int'l Nickel
Atchison, Topeka & Santa Fe R. R.	National Biscuit
Carrier Corporation	Radio Corp. of America
Dow Chemical	Scott Paper
DuPont	Sears, Roebuck
Eastman Kodak	Standard Oil (N.J.)
General Electric	Union Carbide & Carbon
General Motors	Westinghouse Elec.

But the pamphlet also carefully points

out there are many other sound securities well-suited for MIP investment such as "almost any public utility stock like Con Edison in New York or Commonwealth Edison in Chicago or Pacific Gas & Electric."

It can be readily seen that one of the purposes of a formula or plan for investment is to lessen the possibility of errors you might make because of timing; a plain attempt to make this timing business as nearly automatic as possible.

Investment Trusts In the main, investment trust companies, including mutual fund companies are organized as corporations with the sole purpose of investing their capital fund, just as the name would imply. They own no plant or equipment; nearly all assets are in cash or securities of other corporations.

When you buy shares in an investment trust, you do not directly own the securities of corporations in which your trust company has invested. Your profits are derived from interest, dividends, and capital gains from your trust's investments in securities of other corporations.

Investment trusts, and there are hundreds of them, vary considerably in legal organization, ability of management, and in the kind and quality of the securities they own.

The administration of an investment trust company is concerned with the management of the company's capital fund. This fund is often invested in securities of many corporations in many different industries. Some investment trusts concentrate their holdings in one particular industry such as Airlines, Chemicals, or Railroads; holding a number of shares of many companies within the industry.

In theory, the investment trust seems to approach the ideal investment for the small investor. In practice, however, there have been a number of unprofitable headaches associated with trusts in America.

There are two classes of "managed" trusts deserving special comment. The closed-end trust may have a senior stock, and bonds. All have common stock of a set or "closed" number of shares. These common shares are traded either on organized exchanges or over-the-counter just as are securities of industrial corporations. The price you pay for each closed-end trust share is the public market price just as you pay for General Motors or General Electric stock.

The capital of the mutual fund or open-end trust, however, consists solely of money paid in by investors buying shares of the trust. Thus, mutual fund capital will vary day-to-day as investors buy or redeem their shares. Seldom are there other capital funds involved. Not traded on a public market, shares of the open-end trust are purchased by the investor or his broker directly from the trust. The price paid is usually equal to the per share asset value of the trust at the time he buys. But, the open-end trust buyer usually pays a "loading charge" of from five to nine per cent of his investment. In addition to an average of more than 10% of gross income is, each year, taken up by expenses. When the investor wishes to sell his trust shares, he sells it to the trust for its approximate asset value.

No loading charge is found in the closed-end trusts. They do have expenses similar to the mutual funds which eat into stockholder net profits to a substantial degree.

When you buy an investment trust,

whether it is closed-end or mutual fund, you are buying management. And, as we've pointed out earlier, since management is one of the most difficult qualities to assess in your analysis of any company's value, you must exercise extreme care in selecting an investment trust.

The professional investment advice which you pay for in both types of trusts has not always produced superior investment results. By this we mean that your own "management" of a carefully-selected list of stocks traded on the New York Stock Exchange might well lead you to far greater profits than many of the trusts would afford.

There are many points both for and against individual investment trust companies which we cannot adequately cover in a brief article. But a careful comparison of the records of a number of the better-known trusts will show a considerable variance in performance from year to year.

It is our opinion at the present time that the individual physician stands to gain more by investing directly in the securities of carefully selected companies than in a mutual fund. He not only will avoid the "loading charge", operational costs and management fees —but he will not need to sacrifice selectivity or flexibility of choice simply for the sake of variety.

However, when wide diversification through a single purchase is a prime objective, we currently believe that the investor would de well to consider buying a good quality insurance company whose business though diversified, emphasizes the writing of fire and marine casualty policies. In this choice you would expect to find security and earnings stability especially with funds of the company invested in a list of carefully chosen bonds, preferred stocks, and common stocks—in addition to the profit in which you would be sharing from the policy underwriting end of the business.

NEXT MONTH: Selected Industries

AN EXERCISE IN DIAGNOSIS— THE CASE REPORTS

IN addition to our regular quota of original articles, "Refresher" articles and departments, this issue, and every issue, contains selected Case Reports from the Clinico-Pathological Conference at New York University-Bellevue Medical Center. You will find them on pages 486-491. We recommend these studies as interesting and stimulating.

In the
neurodermatitides
contact dermatitis
pruritis ani, vulvae, scroti

first...

control the itch

Bristamin* Lotion affords prompt and sustained relief from itching, allergic or non-allergic in origin, with three or four applications daily.

A new, versatile antihistaminic and antipruritic, it is supplied in a cosmetically delightful neutral base which fastidious patients will appreciate.

Contains no calamine, phenol, or other drying ingredients to cause intensified rebound symptoms.

Available in bottles of 6 fluid ounces.

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*Bristamin brand of Phenyltoloxamine, an exclusive development of Bristol research, is an antihistaminic, antimycotic, and topical anesthetic with an exceptionally low order of toxicity.

SAMPLES AND LITERATURE ON REQUEST

Bristol
LABORATORIES INC.
SYRACUSE, NEW YORK

MODERN THERAPEUTICS

Scars "Planed" Away

In a paper appearing in a recent issue of the New York State Journal of Medicine, the technique of which was demonstrated before the recent Ninth Inter-American Congress of the Pan American Medical Association, Dr. Joseph J. Eller of New York describes an effective method for the removal of acne, smallpox and other scars by the use of rotary steel brushes.

For many years, dermatologists have removed scars by various methods such as so-called sandpaper surgery, chemicals, and by scarification. The sandpaper abrasion technique, while the best of the previously used methods, has disadvantages such as hospitalization and the use of a general anesthetic.

In the past few years, Dr. Eller has corrected numerous types of pitted acne scars and smallpox and other scars by means of surgical abrasion with the use of rotary stainless steel wire brushes revolving at a rate of twelve thousand revolutions per minute. The process is painless throughout.

The operative procedure is relatively simple and does not require hospitalization. Prior to the planing procedure, an ice pack is placed over the area to be treated for about twenty minutes. After the skin is cleansed with alcohol and the eyelids covered and the ears and nasal orifices plugged, ethyl chloride is sprayed on the areas to be treated. Simultaneously, a current of air from a blower is directed on the surface to accelerate the evaporation of the ethyl chloride, and the freezing of the skin occurs in from thirty to sixty seconds.

The ethyl chloride acts as a local anesthetic and also solidifies the skin, presenting a hard, workable surface.

By use of different width brushes moving slowly up and down the scarred area, the scars are planed away. While there may be moderate bleeding, this is easily controlled by the use of dry sterile gauze and a daily dressing of sterile petrolatum.

There is complete healing of the operative area in ten days to two weeks and, generally, one abrasive planing is sufficient. If necessary, the procedure may be repeated in six weeks or at any time later.

Dr. Eller, who has used this proce-

—Continued on page 80a

Diagnosis, Please!

ANSWER

(from page 25a)

CARCINOMA OF THE STOMACH

Note the irregular extensive filling defect in the distal two-thirds of the stomach, with effacement of the rugae, rigidity, absence of peristalsis and partial obstruction.

in the menopause

GYNETONE REPETABS

GYNETONE REPETABS

relief of symptoms—

"tonic effect"—

better than with estrogen alone

GYNETONE REPETABS ".02" also ".04"
ethinyl estradiol 0.02 mg. and Methyltestosterone U.S.P. 5 mg.
ethinyl estradiol 0.04 mg. and Methyltestosterone U.S.P. 10 mg.

GYNETONE,® combined estrogen-androgen.
REPETABS,® Repeat Action Tablets.

Schering

Now, a wider range of effectiveness for skin and mucous membrane infections

NEO-

The three clinically preferred topical antibiotics... stabilized in a unique base that assures their maximal diffusion

Neo-Polycin combines three antibiotics that are clinically established ... nonirritating ... rarely sensitizing ... and seldom used systemically.

1 NEOMYCIN combats both gram-positive and gram-negative bacteria which cause skin infections, being especially effective against staphylococci and proteus organisms.

2 BACITRACIN effectively complements the action of neomycin by its strong action against gram-positive bacteria, and is the antibiotic of choice for topical hemolytic streptococcus infections.

3 POLYMYXIN is particularly effective against *Pseudomonas aeruginosa* and gram-negative bacteria. Its antifungal activity also minimizes the possibility of monilial overgrowth.

SYNERGISTIC COMBINATION Antibacterial synergism has been demonstrated between neomycin and bacitracin ... between neomycin and polymyxin ... and between polymyxin and bacitracin.

UNIQUE BASE PERMITS GREATER DIFFUSION The ointment base, *Fuzene*®, is markedly superior to conventional grease bases, which can release only a small fraction of their antibiotics. *Fuzene* permits thorough diffusion of antibiotic content, without sacrificing stability. It is miscible with tissue fluids and is not contraindicated for acute exudative lesions.

POLYCIN*

(NEOMYCIN, BACITRACIN, POLYMYXIN OINTMENT)

FORMULA Neo-Polycin Ointment contains 3 mg. of neomycin, 400 units of bacitracin, and 8,000 units of polymyxin B sulfate per Gm.

INDICATIONS Useful in all types of skin and mucous membrane infections, and especially valuable when the causative organism cannot be readily identified.

SUPPLIED in 15 Gm. tubes.

In infectious eye diseases

NEO-POLYCIN *Ophthalmic Ointment*

Each Gm. contains 3 mg. of neomycin, 500 units bacitracin, and 10,000 units polymyxin B sulfate, in an anhydrous lanolin-petrolatum base. In ⅛ oz. ophthalmic tubes.

Write for literature on these Neo-Polycin Ointments and on POLYCIN®... the first combination of bacitracin and polymyxin. Full range of economical dosage forms (Ointment, Ophthalmic Ointment, Liquid, and Soluble Tablets) permits unique usefulness in treatment of topical infections. Clinical samples to physicians on request.

PITMAN · MOORE COMPANY

DIVISION OF ALLIED LABORATORIES, INC.

INDIANAPOLIS 6, INDIANA

*TRADEMARK ®REG. U. S. PAT. OFF.

—Continued from page 76a

dure in over two hundred cases, advocates the use of rotary wire brushes as the most efficient and painless method of removing scars.

It is his opinion that as this work becomes increasingly well known, many men and women now suffering from these skin defects will have them corrected resulting in marked improvement in their mental well-being.

The Prophylactic Use of Vitamin K in Hemorrhagic Disease of the Newborn

The prothrombin activity of the newborn infant is about 20-50 per cent that of the normal adult. In the breast-fed infant it normally declines further during the first week. The intramuscular administration of 10 mg. of Synkayvite to the infant at birth or of 40 mg. to the mother before or during labor nearly always eliminated this decline. Such a decline was not observed in artificially-fed infants, according to Dam and Plum in *Postgrad Med. (15*:279 (1954)).

A statistical evaluation of the number of various types of hemorrhages that occurred in infants showed that there was a higher incidence among infants whose mothers had not received vitamin K before or during labor. The study involved 10,876 infants whose mothers had received vitamin K and 22,371 infants whose mothers had not received the vitamin. Since it is practically impossible to determine beforehand those cases in which prophylactic administration of vitamin K is indicated, and since prophylaxis is inexpensive and safe, the

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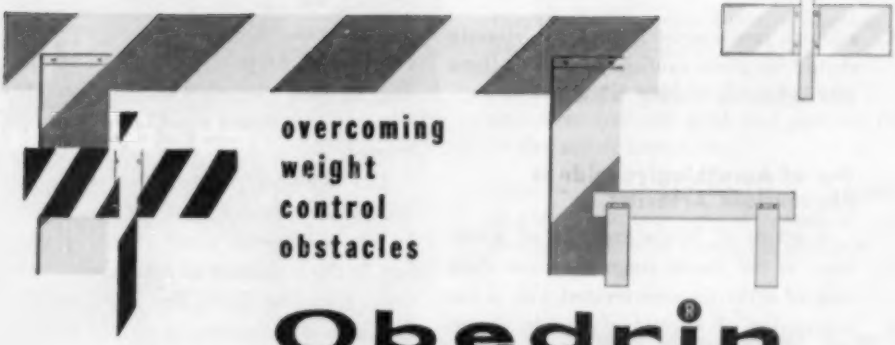

overcoming weight control obstacles

Obedrin®

and the 60-10-70 basic diet

Patients can lose weight and maintain a restricted diet, in comfort, without undesirable side effects . . .

EXCESSIVE DESIRE FOR FOOD

Obedrin offers the full anorexigenic value of Methamphetamine to curb the desire for food, while counteracting mood depression. Patient co-operation is made easier.

NERVOUS TENSION

To avoid excitation and insomnia, Pentobarbital is the ideal daytime sedative. It counteracts over-stimulation by Methamphetamine, but does not diminish the anorexigenic action.

VITAMIN DEFICIENCIES

Obedrin tablets contain adequate amounts of vitamins B_1 and B_2 to supplement the 60-10-70 Basic Diet, but not enough to stimulate the appetite.

EXCESSIVE TISSUE FLUIDS

Large doses of Ascorbic Acid aid in the mobilization of fluids, so often an obstacle in obesity.

BULK NOT NECESSARY

The 60-10-70 Basic Diet provides enough roughage, so artificial bulk is unnecessary. The hazards of impaction caused by "bulk" producers is obviated.

Write For 60-10-70 Diet Pads, Weight Charts And Professional Sample Of Obedrin

S. E. MASSENGILL CO.
Bristol, Tennessee

Each tablet contains:

Semoxydrine HCl (Methamphetamine HCl)	5 mg.
Pentobarbital	20 mg.
Ascorbic Acid	100 mg.
Thiamine HCl	0.5 mg.
Riboflavin	1 mg.
Niacin	5 mg.

—Continued from page 80a

authors recommended that the vitamin should be given routinely to all mothers just before or during labor.

Use of Aurothioglycanide in Rheumatoid Arthritis

A series of 56 patients, 30 of whom were in the severe stage of active rheumatoid arthritis were treated with a fine suspension of aurothioglycanide (Lauron) in sesame oil. Injections of 5 mg. (later increased to 10 mg.) were given once a week and then increased by 5 mg. a week until 100 mg. were being given. This was continued until a total of 3 Gm. had been given. The dose was then gradually given less frequently until 100 mg. was given each month.

Schwartz, Blain, Geiger, and Hartung reported in *J.A.M.A.* (*154*:1263(1954)) that skin rashes developed in 14 per cent of the patients but none of them were severe. Major improvement was obtained in 41 per cent of the patients. The authors attributed the low percentage response to the severity of the cases treated.

The authors pointed out three advantages to the use of gold compounds as compared with other forms of therapy in the treatment of rheumatoid arthritis; they may arrest the active process and prevent progression of the disease, they do not cause a disturbance of hormonal function and balance, and they offer more than simple palliation.

Treatment of Asthma with Khellin

An aqueous suspension of pure crystalline khellin (Ammivin) given by in-

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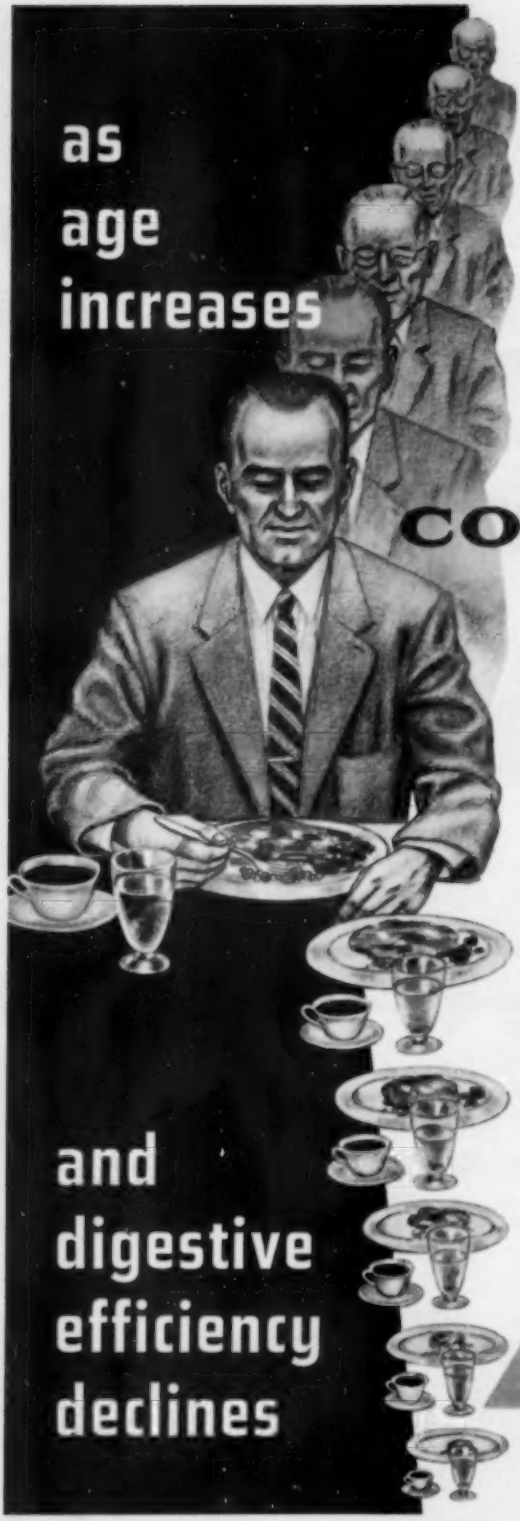

CONVERTIN supports digestive function by selective release of:

hydrochloric acid in the stomach, and desoxycholic acid and pancreatin in the small intestine.

Experience shows that the supplementation of gastric and pancreatic digestants is normally beneficial among the elderly.[1-3]

CONVERTIN®

digestant tablets

permit a more varied diet . . . better nutrition . . . by partial replacement of digestants diminished with age.

Each CONVERTIN Tablet is actually two tablets in one:

A sugar-coated outer layer designed to release in the stomach:

Betaine HCl . . . 130.0 mg. *(Provides 5 minims Diluted Hydrochloric Acid U.S.P.)* ***and***
Oleoresin Ginger . . . 1/600 gr.

Surrounding an enteric-coated core designed to release in the small intestine:

Pancreatin . . . 62.5 mg. *(Equiv. to 250 mg. U.S.P.)* ***and***
Desoxycholic Acid . . . 50.0 mg.

DOSAGE: Two tablets with or just after meals. Dose may be reduced, usually after first week, at the discretion of the physician.

SUPPLIED: In bottles of 84 and 500 tablets.

Available on prescription only

B.F. ASCHER & COMPANY, INC.
Ethical Medicinals
KANSAS CITY, MO.

References: 1. Lee, R. I.: Chicago M. Soc. Bull.: 48:503, 1946. 2. Golob, M.: Am. J. Digest. Dis. 18:308, 1951. 3. McLester, J. S., and Darby, W. J.: Nutrition and Diet in Health and Disease, ed. 6, Philadelphia, W. B. Saunders Company, 1952, pp. 416, 476.

A. M. A.
ARCHIVES OF
DERMATOLOGY AND SYPHILOLOGY
JUNE 1954
VOLUME 69 NUMBER 6

new clinical success[1] in

lupus erythematosus

Improvement in 13 out of 15 patients
with chronic discoid lesions—"erythema subsided, infiltration and follicular plugging lessened, hypertrophy diminished—at an accelerated rate compared to previous progress" when Panthoderm Cream was added to oral massive-dose pantothenic acid and vitamin E therapy previously used alone.

Accelerated improvement in 6 out of 8 patients
was obtained in disseminated discoid lesions as compared with oral therapy alone. Two patients with oral ulcerated lesions showed "amazingly prompt re-formation of mucous epithelium" with Panthoderm Cream massage.

Panthoderm Cream "evidenced stimulation of epithelization (most marked in **hypostatic dermatitis with ulceration**), and resolution of maceration, healing of fissures and excoriations (**in pruritus ani et vulvae and senile vulvitis**)."
. . . and good to excellent results in

- **atopic dermatitis and neurodermatitis**
- **leukoplakia and perleche**
- **dermatofibroma lenticulare and seborrheic kerotosis**

SAFE—"There was no evidence of sensitization." Panthoderm Cream was "well tolerated."

Panthoderm Cream is widely used in dry eczema, burns, wounds, external ulcers, diaper rash, and a wide variety of other skin conditions.

u. s. vitamin corporation
Arlington-Funk Labs., division • 250 East 43rd St., New York 17, N. Y.

1. Welsh, A. L. and Ede, M.: A.M.A. Archives Derm. & Syph., June 1954.

—Continued from page 82a

tramuscular injection produced appreciable relief in 28 of 37 patients with chronic asthma, according to a report by Tuft in *Ann. Allergy (11:*740-(1954)). Mild local pain at the site of injection was reported in only 7 of the patients, in contrast to the severe local pain often reported with other types of intramuscular injections of this drug. Gastric upset was reported by only one patient who did not return after the first injection.

Intravenous Administration of Trypsin

The intravenous administration of a highly purified crystalline form of trypsin of the enzyme produces changes in inflammatory processes. In chronic thrombophlebitis trypsin markedly influences the acute inflammatory reaction, causing a striking reduction in edema, a healing of skin excoriations, and an improvement in the color of the extremity. Peck reported in *J.A.M.A. (154:*1260 (1954)), however, that the side reactions are quite severe. They are of three general types, immediate, latent and secondary. The immediate reactions are a flushing of the face and a warm feeling. The latent reactions begin about two hours after the start of an injection and are characterized by chills and fever, anorexia, nausea, abdominal cramps, vomiting, and aching pain in

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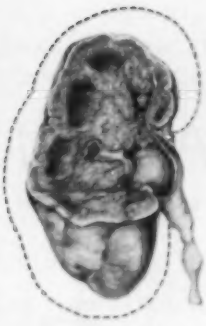


RAPID CURES

of urinary tract infections
prevent permanent kidney damage

Infections of the lower urinary tract rarely remain localized for any length of time. The kidneys are often invaded rapidly unless effective treatment is instituted immediately. Hence, the choice of the first drug used may decide the fate of the kidneys.

FURADANTIN®

brand of nitrofurantoin, Eaton

Furadantin is unique, a new chemotherapeutic molecule, neither a sulfonamide nor an antibiotic.

RAPID ACTION. Within 30 minutes after the first Furadantin tablet is taken, the invaders are exposed to antibacterial urinary levels.

WIDE ANTIBACTERIAL RANGE. Furadantin is strikingly effective against a wide range of clinically important gram-negative and gram-positive bacteria, including strains notorious for high resistance.

Scored tablets of 50 mg. Bottles of 50 and 250.
Scored tablets of 100 mg. Bottles of 25 and 250.

Also available: Furadantin Pediatric Suspension, containing 5 mg. of Furadantin per cc. Bottle of 4 fl. oz.

EATON LABORATORIES
NORWICH, NEW YORK

THE **NITROFURANS**—A UNIQUE CLASS OF ANTIMICROBIALS U.S. PRODUCTS OF EATON RESEARCH

There are now 5 'Spansule' preparations
that have been perfected and clinically proved.

SPANSULE†

BRAND OF SUSTAINED RELEASE CAPSULES

developed and manufactured only by S.K.F.—
and distributed only under the S.K.F. label

DEXEDRINE* Sulfate SPANSULE†

10 mg. & 15 mg. — dextro-amphetamine sulfate, S.K.F.
for day-long control of appetite in weight reduction

New **DEXAMYL* SPANSULE†**

No. 1 & No. 2 — a balanced combination of dextro-amphetamine sulfate, S.K.F., and amobarbital
for continuous and sustained mood-ameliorating effect

sustained release of medication over a prolonged period of time

ESKABARB* SPANSULE†

1 gr. & 1½ gr. — phenobarbital, S.K.F.
for continuous even sedation with phenobarbital throughout the day—or night

New **TELDRIN* SPANSULE†**

8 mg. & 12 mg. — chlorprophenpyridamine maleate, S.K.F.
for continuous and sustained antihistamine effect

BENZEDRINE* Sulfate SPANSULE†

15 mg. — amphetamine sulfate, S.K.F.
for day-long relief of psychogenic tiredness

†Trademark for S.K.F.'s brand of sustained release capsules (patent applied for).
*Trademark

Announcing the newest (5th) application
of S.K.F.'s unique oral dosage form

'Dexamyl' now available in 'Spansule' sustained release capsules
for the continuous and sustained mood-ameliorating effect
of 'Dexamyl' over a prolonged period of time

DEXAMYL

T.M. Reg. U.S. Pat. Off.

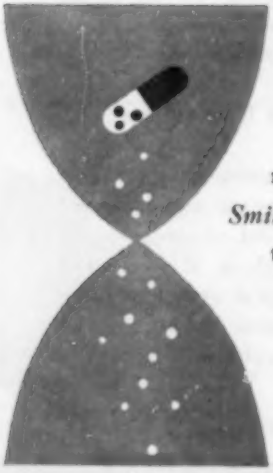
SPANSULE†

BRAND OF SUSTAINED RELEASE CAPSULES

In two dosage strengths:

No. 1—Dexedrine* Sulfate (dextro-amphetamine sulfate, S.K.F.), 10 mg., and amobarbital, 1 gr.

No. 2—'Dexedrine' Sulfate (dextro-amphetamine sulfate, S.K.F.), 15 mg., and amobarbital, 1½ gr.



Both dosage strengths are designed to have the same duration of effect. The difference is in the intensity of effect. To determine optimal dosage for an individual, begin with one 'Dexamyl' *Spansule* (No. 2) capsule daily—taken on arising or at breakfast. Response to this dosage will be the best guide to subsequent administration.

made only by

Smith, Kline & French Laboratories • Philadelphia

the originators of sustained release oral medication

—Continued from page 86a

the upper extremity. These usually last no more than 2 hours and rarely occur after the first injection in a series. The secondary reaction is not dissimilar to a chemical phlebitis, except that it is more severe and more extensive.

Although trypsin seems to have a place in the treatment of certain inflammatory processes, the author pointed out that unless the side effects can be controlled its use will be limited.

The Effect of Polyvinylpyrrolidone As a Drug Retardant

The effect of polyvinylpyrrolidone (PVP) in retarding the absorption and effect of morphine, pethidine, and methadone from a solution given by intramuscular or subcutanceous injection in rats was studied and reported by Graham, Slinger, and Teed in *J. Pharm. Pharmacol. (VI:*115(1954)). The drugs were given in 5, 10, 20, and 40 per cent solutions of PVP in distilled water. There was no marked influence on the duration of action or potency of these analgesic drugs by the presence of PVP. The onset of analgesia was somewhat delayed by the highest concentrations of PVP, particularly when the drugs were injected intramuscularly.

Norlpinephrine in Irreversible Shock

Irreversible changes usually occur in the body of the patient who has been in shock for a period of several hours as a result of the shock of myocardial infarction, or surgical or hemorrhagic shock. The continuous intravenous infusion of norepinephrine (Levophed)

—Continued on page 92a

Nothing to Hide but PSORIASIS

RIASOL has made many an embarrassed woman proud to wear a revealing bathing suit. By clearing the ugly patches of psoriasis, it leaves a normal healthy skin for admiring eyes.

It is well known that exposure to abundant sunlight at the beaches is beneficial in psoriasis. Few patients, however, will expose themselves to curious and critical eyes until the skin patches have been controlled with RIASOL.

RIASOL acts best when the treated parts are also exposed to direct sunlight. For this reason it is advisable to treat all cases of psoriasis intensively during the summer months.

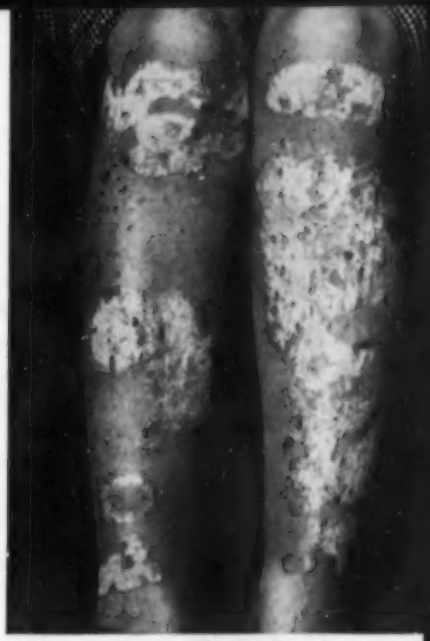
Medical statistics show that favorable results are obtained in approximately 76% of all cases of psoriasis treated with RIASOL.

RIASOL contains 0.45% mercury chemically combined with soaps, 0.5% phenol and 0.75% cresol in a washable, non-staining, odorless vehicle.

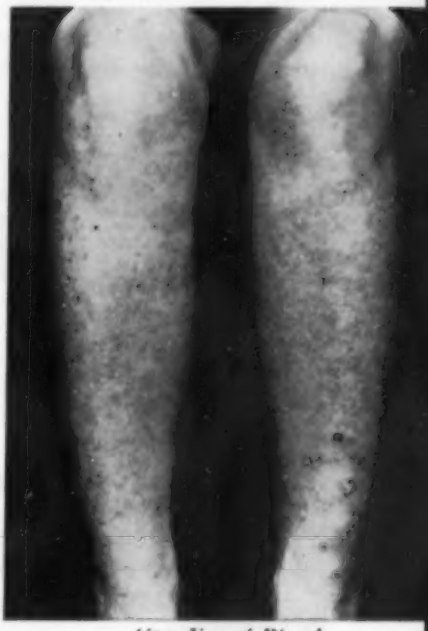
Apply daily after a mild soap bath and thorough drying. A thin invisible, economical film suffices. No bandages required. After one week, adjust to patient's progress.

Ethically promoted RIASOL is supplied in 4 and 8 fld. oz. bottles at pharmacies or direct.

MAIL COUPON TODAY—TEST RIASOL YOURSELF



Before Use of Riasol



After Use of Riasol

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12850 Mansfield Ave., Detroit 27, Mich.

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Please send me professional literature and generous clinical package of RIASOL.

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City ..... Zone ..... State .....

Druggist ..... Address .....

RIASOL for PSORIASIS

MODERN THERAPEUTICS

—Continued from page 90a

permitted 20 of 30 patients in severe shock accompanying myocardial infarction to recover from the shock episode. Of those who recovered about 40 per cent had been in shock longer than 3 hours, and one for 25 hours, before the drug was administered.

Sampson and Zipser reported in *Circulation (9*:38(1954)) that an average dose of 7.5 micrograms of norepinephrine per minute was required to elevate and sustain the blood pressure.

Sulfamylon in Otitis Externa

In cases of otitis externa, quite common in the South and Southwest, Sulfamylon is the drug of choice when a sensitivity test has not been run, according to McLaurin in *J.A.M.A.(154*:-207(1954)). A series of 157 cases were reported by the author. Since otitis externa is of bacterial origin in the majority of cases and since Sulfamylon has a wide bacterial spectrum it is effective in such cases. The drug does not harm epithelial tissue and is active in the presence of pus and blood.

Supplemental measures include daily cleansing of the ear as well as keeping it clean and dry. Small applications of roentgen rays are valuable relief measures for pain and discomfort.

Pseudohematuria Caused by Para-Aminosalicylic Acid, Sulfonamides, and Para-Aminobenzoic Acid

The voiding of urine from patients

—Continued on page 102a

When in doubt about antibacterials —

We believe you'll agree that most of them are rather good. Still, we hope you'll try Gantrisin 'Roche'...because this single sulfonamide is soluble in both acid and alkaline urine...because it has a wide antibacterial spectrum ...an impressive clinical background...and, above all, because it's so well tolerated by most patients.

Gantrisin® -- brand of sulfisoxazole

When
the patient
is in pain —

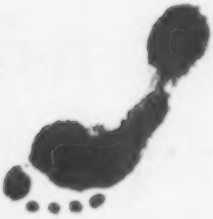
There is a new form of synthetic narcotic analgesic... less likely to produce constipation than morphine... indicated for relief of severe or intractable pain -- LEVO-DROMORAN® TARTRATE 'ROCHE'.

Vacation Months
...BUSY SEASON

Busy Season For

OCTOFEN® *Too...*

Leading specialists in increasing numbers are advising OCTOFEN for routine summer treatment and prevention of athlete's foot. OCTOFEN LIQUID, containing an effective concentration of the fungicide 8-hydroxyquinoline, kills T. mentagrophytes in two-minutes flat in laboratory tests. At the first telltale signs of cracking, itching, reddening – between the toes or on the feet, generous applications of OCTOFEN LIQUID never lets athlete's foot get a foothold. And OCTOFEN LIQUID is kind to the skin too – cooling, refreshing, greaseless, non-staining, quick drying. No awkward wet dressings are required, no time lost from vacation fun. For continuous protection against recurrent attacks, OCTOFEN POWDER, containing moisture-absorbing silica-gel as well as the active fungicide, helps keep feet dry, curbs foot odors too.



FOR ATHLETE'S FOOT

While athlete's foot is no respecter of seasons, causative fungi flourish best in vacation months. As temperature and humidity go up – so does the incidence of the infection. Statistics[1] indicate that, during July and August, 3 out of 4 of your patients will be afflicted. Vacationists and "stay at homes" are equally vulnerable. The typical vacation day with its 36 holes of morning golf -- 5 sets of afternoon tennis – dancing 'til 3 the next morning – takes its toll on the feet, leaves them susceptible to the devastating, ever-present athlete's foot fungi, waiting to get their hooks in. But with OCTOFEN on the scene, athlete's foot runs for cover. OCTOFEN is sound advice for the footworn.

1. EXP. MED. & SURG. 7:37, 1949.

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Bridgeport 9, Connecticut

Kindly send me free samples of your OCTOFEN LIQUID and OCTOFEN POWDER.

Name_____ M.D.

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Upjohn

mg. of the whole root... Reserpoid carries non-hypnotic sedation and bradycardic action along with its principal antihypertensive effect. It is a persistently pleasant drug: usually even before the pressure falls, a sense of calm settles over the anx-

ious and irritable hypertensive. Lowering of the pressure is gradual, which gives the patient a week or more to adjust to the new levels. Reserpoid acts centrally upon the autonomic nervous system. It is not a ganglionic blocking agent, does not induce

Upjohn

postural hypotension . . . Reserpoid has no presently defined contraindications. It is ideal for the "average" case—that large group of mild and moderate hypertensives who have symptoms, but no demonstrable pathology. In severe hypertension with advancing vas-

Upjohn

cular damage, Reserpoid is valuable in augmenting and stabilizing the effects of other, more drastic drugs—making their smaller dosage possible. Reserpoid therapy is not encumbered by the difficulties of delicate titration. Just 1 mg. of Reserpoid daily, taken in

—Continued from page 92a

taking *p*-aminosalicylic acid, *p*-aminobenzoic acid or sulfonamides in the presence of hypochlorites causes the development of a red color. If the urine concentration of the drugs is sufficiently high, the color resembles that of blood. This pseudohematuria may occur in toilet bowls right after they have been cleaned with one or the commercially available cleaners and deodorizers containing hypochlorite. It is essential that this pseudohematuria be differentiated from true hematuria. After this phenomenon was encountered by some of their patients, Horowitz, Salkin and Gilrane investigated the cause and reported their findings in *J.A.M.A.(154:676(1954)*). They reported that *p*-minosalicylic acid is detectable in the urine at a level of 2 to 3 mg., sulfonamides at a level of 20 to 30 mg. and *p*-aminobenzoic acid at even high levels by the development of a pink color in the presence of an excess of hypochlorite. Higher levels are required to produce the blood-red color.

Neomycin and Polymyxin as Intestinal Antiseptics

The use of antimicrobial drugs in the control of the bacterial counts of the bowel contents is justified only in the event that they increase the effectiveness of purgatives and enemas in mechanically cleansing the bowel, ac-

—Continued on page 104a

SOLUBILITY is a measure of SUITABILITY

Of the four leading sulfonamides prescribed in infections of the urinary tract, "Thiosulfil" has been demonstrated to be the most soluble. It is this greater solubility plus high bacteriostatic activity and low acetylation rate which make

"THIOSULFIL"®

the safest and most effective sulfonamide yet presented for

urinary tract infections

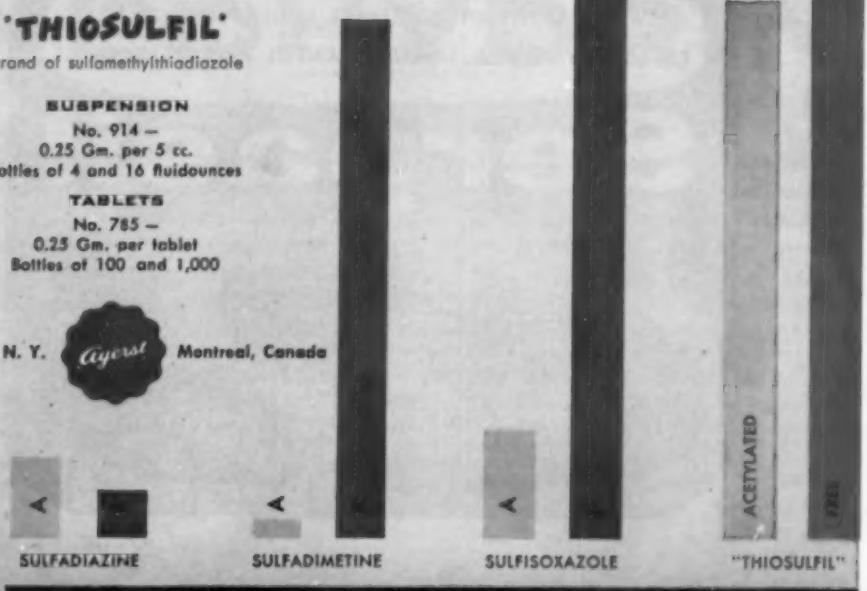
- **Rapid transport to site of infection for early and effective urinary concentration**
- **Rapid renal clearance**
- **Minimum toxicity**
- **Minimum risk of sensitization**
- **No alkalinization required**
- **No forcing of fluids**

"THIOSULFIL"
brand of sulfamethylthiadiazole

SUSPENSION
No. 914 —
0.25 Gm. per 5 cc.
Bottles of 4 and 16 fluidounces

TABLETS
No. 785 —
0.25 Gm. per tablet
Bottles of 100 and 1,000

New York, N. Y. Ayerst Montreal, Canada



Solubility comparison at pH 6 in human urine at 37° C.

513

—Continued from page 102a

cording to Spaulding, Rao, Tyson, Harris and Zubrzycki in *Bacteriol. Proceed.* (page 81(1954)). Daily doses of 200 mg. of polymyxin were not effective. Daily doses of 3 Gm. of neomycin had little effect on the total count although they did eliminate coliform organisms and streptococci. A dose of 10 Gm. of neomycin and 15 Gm. of sulfathalidine was effective in markedly reducing the counts, but such therapy is costly and produced undesirable side effects.

A total dose of 3 Gm. of neomycin and 200 mg. of polymyxin given within a period of 16 hours was found to be optimal. All microorganisms were eliminated with the exception of yeasts. The authors stated that studies were in progress on the combination of antifungal agents as a means of controlling the yeast count.

Oral Diuretic in Chronic Congestive Heart Failure

The oral diuretic Neohydrin was used in the treatment of 70 ambulatory patients with chronic congestive heart failure. The patients varied in age from 39 to 88 years. All had previously been receiving parenteral diuretic therapy. The usual dose was 3 tablets a day, each equivalent to 10 mg. of mercury. The drug was used for a period of 3 months or longer. Lawrence, Kahn, and Riser reported in *South. Med. J. (47:*183(1954)) that 6 patients responded as well with the oral diuretic as with the parenteral and 32 responded better.

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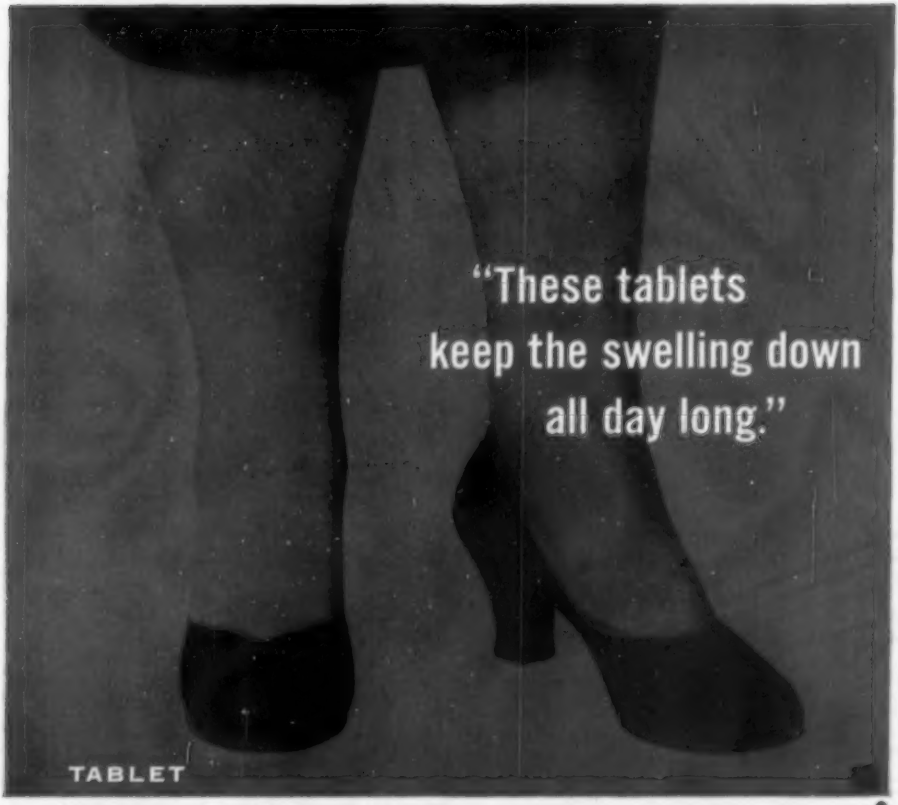
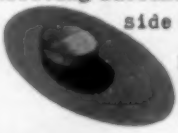


NEOHYDRIN

BRAND OF CHLORMERODRIN

NORMAL OUTPUT OF SODIUM AND WATER

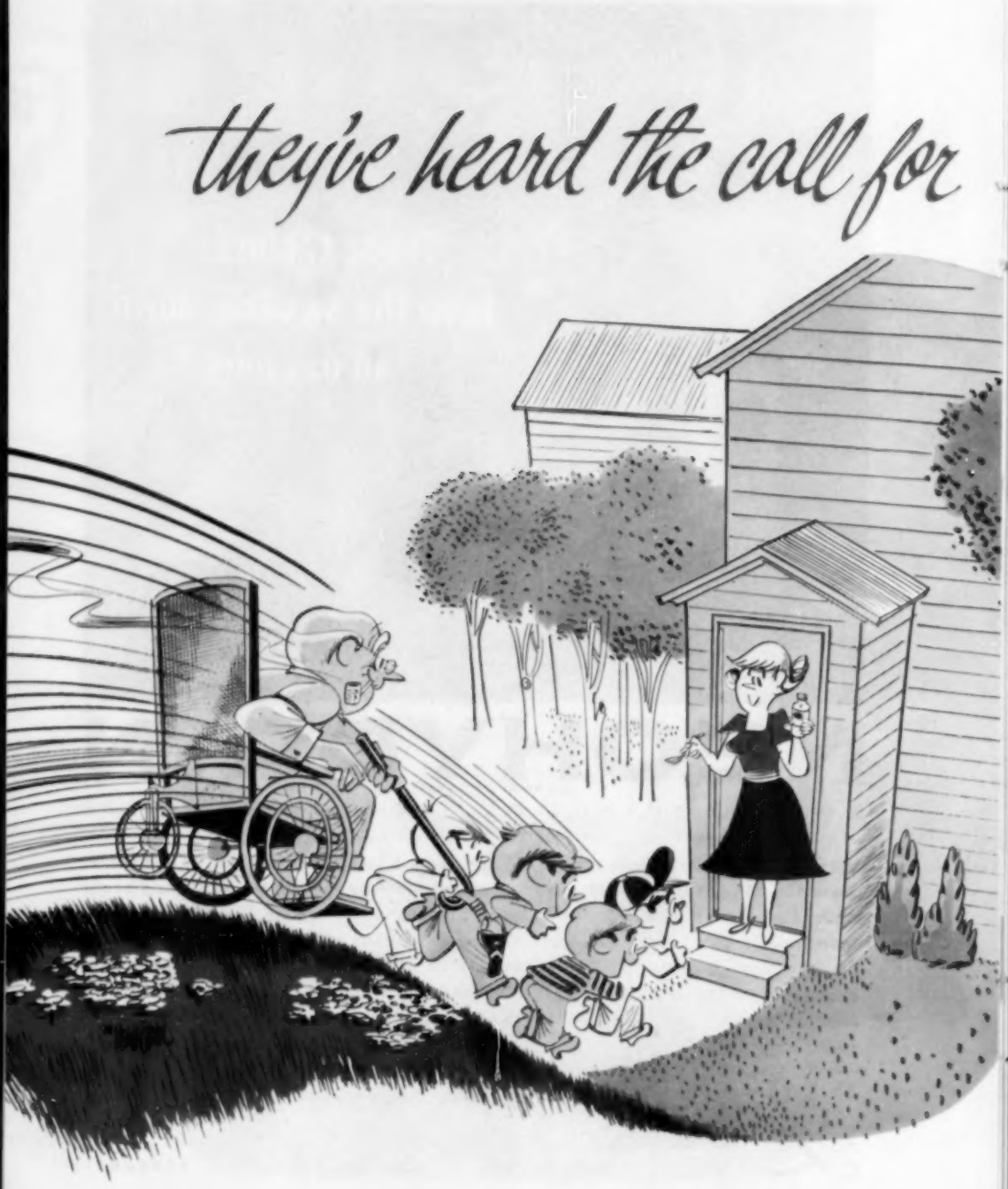
Individualized daily dosage of NEOHYDRIN -- 1 to 6 tablets a day as needed -- prevents the recurrent daily sodium and water reaccumulation which may occur with single-dose diuretics. Arbitrary limitation of dosage or rest periods to forestall refractivity are unnecessary. Therapy with NEOHYDRIN need never be interrupted or delayed for therapeutic reasons. Because it curbs sodium retention by inhibiting succinic dehydrogenase in the kidney only, NEOHYDRIN does not cause side actions due to widespread enzyme inhibition in other organs.



Prescribe NEOHYDRIN in bottles of 50 tablets. There are 18.3 mg. of 3-chloromercuri-2-methoxy-propylurea in each tablet.

Leadership in diuretic research

LAKESIDE LABORATORIES, INC · MILWAUKEE 1, WISCONSIN


they've heard the call for

VI-DAYLIN®

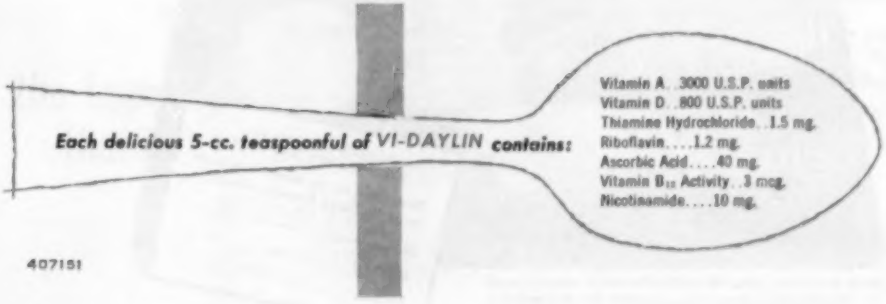
(HOMOGENIZED MIXTURE OF VITAMINS A, D, B_1, B_2, B_{12}, C AND NICOTINAMIDE, ABBOTT)

Grandpa too? Sure! VI-DAYLIN's a taste-treat at any age. It's all lemon-candy, golden-honey goodness—from the first suspicious sip to the last delicious lick. And each spoonful holds a full day's supply of *seven* important vitamins, including body-building B_{12}.

VI-DAYLIN needs no pre-mixing, no droppers, no refrigeration. Mother can pour it as is—serve it with milk, cereals or juices—and store it where she wishes.

For kids—and for grownups who dislike tablets or capsules—you'll find VI-DAYLIN tops among liquid multivitamins. Prescribe it in the economical pint-size bottle—there's more than enough for the next three months.

Abbott



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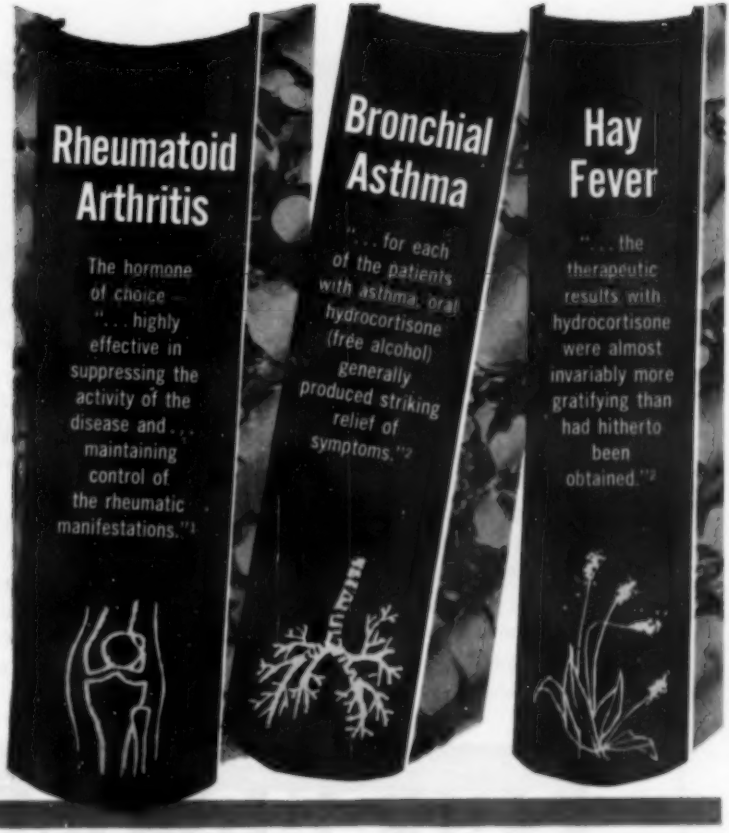
Stability of Solutions of Sodium Phenobarbital

Aqueous solutions of sodium phenobarbital apparently decompose faster than was previously realized. Using a non-aqueous titration method involving pyridine as the vehicle and sodium methylate in benzene as the titrating solution with phenolphthalein as the indicator, O'Reilly and Wright reported in *J. Pharm. Pharmacol. (6:*253-(1954)), that they found a higher rate of decomposition than had been reported previously. They used aqueous concentrations of 5, 10 and 20 per cent sodium-phenobarbital stored at 5°, 15° and 30° C. The loss after 25 days of storage at 15° C. was 2.0, 6.4 and 4.1 per cent for the respective solution concentrations. The loss was somewhat less at 0° C. and considerably greater at 30° C.

Terramycin in the Treatment of Trench Mouth

Trench mouth or Vincent's infection was treated in 42 subjects. The gum area involved in each patient was divided into three sections. One area was treated with a mixture of eugenol and zinc oxide, another with this paste plus oxytetracycline, and a third section was not treated but only cleaned. Within 48 hours Shpuntoff and Shpuntoff reported in *J. Am. Dent. Assoc. (48:*169(1954)) that 39 of the terramycin treated areas were healing, 24 of the eugenol zinc oxide paste treated areas, but only 9 of the unmedicated areas were healing. The authors thus concluded that oxytetracycline is an effective adjunct in the treatment of Vincent's infection.



Triad of clinically established indications for

dramatic

Cortril

brand of hydrocortisone

tablets

the hormone that is anti-rheumatic anti-allergic anti-inflammatory

Supplied: scored tablets, 10 mg. and 20 mg. hydrocortisone, free alcohol

also available:

CORTRIL Topical Ointment

CORTRIL Acetate Aqueous Suspension for intra-articular injection

CORTRIL Acetate Ophthalmic Ointment

CORTRIL Acetate Ophthalmic Suspension with TERRAMYCIN® Hydrochloride

references: 1. Boland, E. W., and Headley, N. E.: J.A.M.A. 148:981, March 22, 1952. 2. Schwartz, E.: J. Allergy 25:112-119, March, 1954.

Pfizer PFIZER LABORATORIES, *Brooklyn 6, New York*
Division, Chas. Pfizer & Co., Inc.

NEWS AND NOTES

New Illness Resembling German Measles Described

An outbreak of a new, mild illness, characterized by a skin eruption, is described in a recent issue of the *Journal of the American Medical Association.*

The disease, prevalent in and around Boston in 1951, was found to be both infectious and contagious, according to Dr. Franklin A. Neva, Pittsburgh, and Drs. Roy F. Feemster and Ilse J. Gorbach, Boston, who made a study of 18 cases and reported 2,450 cases seen by other physicians.

Although the condition had some of the features of German measles, careful study showed that it is probably an entirely new type of infection, the report stated.

The 18 patients studied by the physicians ranged in age from four months to 26 years. The majority of patients had a fever of about 102F which lasted one to two days and was accompanied by a sore throat, a generalized aching of muscles, and chills.

All the children, but only one of the three adults afflicted, exhibited varying degrees of skin eruption. The rash usually was most evident over the face and

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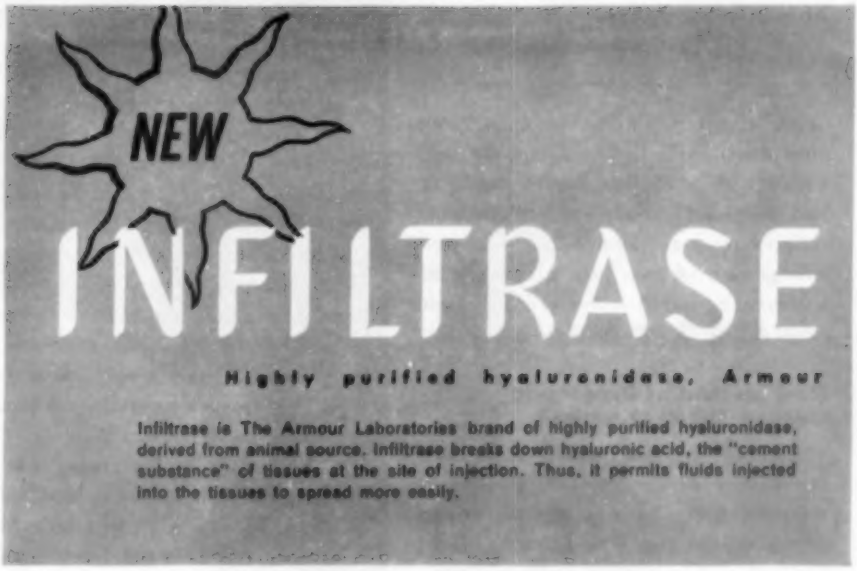

INFILTRASE OFFERS THESE HIGHLY SIGNIFICANT ADVANTAGES . . .

- facilitates subcutaneous administration of fluids
- permits rapid infiltration of local anesthetics
- enhances the action of the pudendal block
- in renal lithiasis, is credited with preventing new stone formation, and preventing an increase in the size of existing stones
- safety
- easy to administer . . . no intricate setup required

INFILTRASE is supplied as a lyophilized powder in 1 cc. vials containing 150 TR (turbidity reducing) units, and 10 cc. vials, containing 1500 TR units.

THE ARMOUR LABORATORIES
A DIVISION OF ARMOUR AND COMPANY • CHICAGO 11, ILLINOIS

—Continued from page 110a

upper chest, appearing in most cases after onset of the other symptoms and within one or two days after the fever had subsided. Some of the patients suffered mucous membrane lesions and enlargement of their neck glands. None, however, appeared severely ill. Multiple cases appeared in two families.

New Method of Diagnosing Cancer Shows Promise

A promising new method of diagnosing cancer of the prostate gland was reported today by a group of doctors at the annual meeting of the American Urological Association in New York.

The technique, described as a "simple, practical method" by Dr. Joseph K. Cline of the Cancer Research Department, Medical College of Alabama, Birmingham, Ala., is a serological, or blood, test developed on the basis of earlier experiments in determining the presence of cancer in men from other serum tests. The study, in which 13 southern medical centers furnished information and cooperation, undertook an examination of 4,000 patients with a total of over 1,100 subjects on whom clinical evaluation has been completed, and presented "statistical evidence of the utility of our newly developed method for the determination of serum prostatic acid phosphatase."

Dr. Cline said in his report that in prior methods of a similar nature "there was indication of a close relationship between elevated serum acid phosphatase levels (in the blood) and prostatic carcinoma, a relationship that is not paralleled by other commonly oc-

—Continued on page 114a

routine...

for rapid control of bleeding

KOAGAMIN®

systemic aid to faster clotting

Because it acts directly on the clotting mechanism, KOAGAMIN — ACTS RAPIDLY — in minutes not hours.

ARRESTS ALL TYPES OF CAPILLARY AND VENOUS BLEEDING — (unlike vitamin K which is indicated only in relatively infrequent prothrombin deficiencies.)

IS SAFE — no untoward side effect, including thrombosis, has ever been reported.

Invaluable in everyday practice, KOAGAMIN is especially useful in *postpartum hemorrhage, uterine bleeding, prostatectomy, tonsillectomy, epistaxis, oral and nasal surgery, and gastric ulcer.*

KOAGAMIN, an aqueous solution of oxalic and malonic acids for parenteral use, is supplied in 10-cc. diaphragm-stoppered vials.

Chatham

CHATHAM PHARMACEUTICALS, INC.
Newark 2, New Jersey

—Continued from page 112a

curring malignancies."

The study by Dr. Cline and his group, with the cooperation of the Cancer Institute at Miami and the Tumor Registry of the Alabama Association of Pathology applied the new method to six different groups representing normal male subjects, non-malignant, malignant, or cancerous, as well as patients suffering from benign prostatic hypertrophy and prostatic infections.

International Academy of Proctology 1954-1955 Award Contest

The International Academy of Proctology announces its Annual Cash Prize and Certificate of Merit Award Contest for 1954-1955. The best unpublished contribution on Proctology or allied subjects will be awarded $100.00 and a Certificate of Merit. Certificates will be awarded also to physicians whose entries are deemed of unusual merit. This competition is open to all physicians in all countries, whether or not affiliated with the International Academy of Proctology. The winning contributions will be selected by a board of impartial judges, and all decisions are final.

The formal award of the First Prize, and a presentation of other Certificates, will be made at the annual Convention Dinner Dance of the International Academy of Proctology, in March 1955. The International Academy of Proctology reserves the exclusive right to publish all contributions in its official publication, "The American Journal of Proctology." All entries

—Continued on page 116a

New clinical experience confirms

LOWILA® Cake is

valuable as a cleanser for the skin of the newborn infant, especially the offspring of an allergic family, for the child suffering from infantile eczema, and for the delicate skin of the premature infant. Lowila Cake is also indicated as a cleanser for infants with "heat rash" or miliaria, and ammoniacal dermatitis.

These observations by Drs. L. S. Nelson and A. V. Stoesser are reported in "Cleansing Agents — Irritating and Non-Irritating to the Skin", published in the September-October 1953 issue of Annals of Allergy.

Prescribe **LOWILA** Cake as a skin cleanser in allergic or dermatitic conditions when soap irritates.

LOWILA Cake contains NO alkali — NO fatty acids — and NO perfumes.

LOWILA Cake maintains the normal "acid mantle" of the skin at pH 4.5-5.5.

LOWILA Cake is the only lathering soapless skin cleanser in cake form.

Reprints and samples on request.

Westwood Pharmaceuticals · 468 Dewitt Street, Buffalo 13, N.Y.

DIVISION OF FOSTER-MILBURN CO

—Continued from page 114a

are limited to 5,000 words, must be typewritten in English, and submitted in five copies. All entries must be received no later than the first day of February, 1955. Entries should be addressed to the International Academy of Proctology, 43-55 Kissena Boulevard, Flushing, New York.

Texas Physicians Receive Library Materials in "Laundry Kits"

Laundry kits—somewhat smaller than those Joe College uses to send his dirty wash home to mother—have proven to be extremely satisfactory containers for the two-way shipment of medical journals and other library reference materials.

The Memorial Library of the Texas Medical Association has reported that the use of these small "laundry kits" has solved an age-old problem for the shipment of materials to physicians.

Paper cartons of all sizes previously had been used to fill requests by the Memorial Library. More often than not, these cartons were thrown into the wastebasket upon receipt by the physician.

As a result, the physician or his secretary or nurse was forced "to scrounge around" to find containers that could be used when the library materials were ready for return shipment. Many of these containers, held together by string and adhesive tape, were torn apart before reaching the Library, causing damage to the materials. Faced with this shipment prob-

—Continued on page 118a

Announcing three more BARD-PARKER firsts!

1 The New

½ GROSS RACK-PACK—package containing one size of B-P RIB-BACK blades on three arms—24 blades to the arm. This addition to the RACK-PACK family embodies the same convenience in use and blade protection as the one gross RACK-PACK . . . and is equally a "TIME and LABOR SAVER" for O. R. personnel.

2 The New

6 ARM, RACK-PACK STAND—which serves as permanent equipment, and fits the B-P Blade Jar. It meets hospital O. R. requirements for a larger "on-hand" selection of ready-to-use RIB-BACK blades.

3 The New

BLADE NUMBER TABS—Each RACK-PACK arm is equipped with a NUMBER TAB which clearly identifies the blades—when in the package—when in the sterilizer—so that quick easy identification of blades can be made in the O.R.

It's Sharp

Ask Your Dealer

BARD-PARKER COMPANY, INC., Danbury, Connecticut, U.S.A.

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NEWS AND NOTES

—Continued from page 116a

lem, many physicians reduced or eliminated requests from their state medical association.

Use of these kits offer many advantages, according to Miss Pauline Duffield, Librarian of the Texas Medical Association.

"In the seven months in which we have used the kits, we have found them to be economical, with less wear and tear on the materials, and a real help in improving the disposition of the library staff and the physicians. Our materials now are coming back in better condition, and we have very few overdue notices to send out. Most importantly, doctors are finding it more convenient to use the facilities of the library."

Department of Industrial Medicine Established

Wayne University recently became the first American university to establish a department of industrial medicine and officials stated that such training will become an integral part of the education of every medical student.

Chosen to head the new department after a two year search was Dr. Arthur J. Vorwald, internationally-known pathologist and former director of the Edward L. Trudeau Foundation in Saranac Lake, New York.

The department is an outgrowth of a program of instruction in industrial medicine given to senior medical students for the past two years with the cooperation of the Industrial Physicians Club of Detroit. It will begin active operation in the fall.

—Concluded on page 120a

RHINALGAN®

NASAL DECONGESTANT

Uniformly *Safe!* FOR INFANTS • CHILDREN ADULTS AND AGED

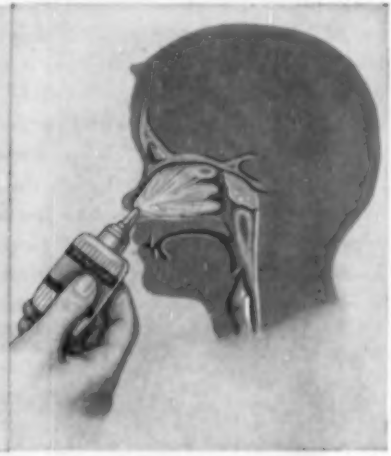
DOES **NOT** CONTAIN ANY ANTIBIOTIC

Does not affect
BLOODPRESSURE
RESPIRATION
CENTRAL NERVOUS SYSTEM

ENTIRELY Safe! in
CARDIAC—DIABETIC
PREGNANCY—THYROID
AND HYPERTENSION CASES

Authoritative Proof sent on request.

COMPLETELY FREE OF SIDE-EFFECTS... no cumulative action...no overdosage problem...non-toxic.



For *Safety!* USE RHINALGAN

NOW Modified Formula assures *PLEASANT, PALATABLE TASTE!*

FORMULA: Desoxyephedrine Saccharinate 0.50% w/v in an isotonic aqueous solution with 0.02% Laurylammonium saccharin. Flavored. pH 6.4.

Available on YOUR prescription only!

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NEW 0 10S-BID SAN—A specific in Suppurative Ear Infections (Acute or Chronic).

AURALGAN—After 40 years STILL the analgesic and decongestant.

RECTALGAN-Liquid—For symptomatic relief in: Hemorrhoids, Pruritus, Perineal Suturing

DOHO CHEMICAL CORP., 100 Varick Street, New York 13, N. Y.

NEWS AND NOTES

—Concluded from page 118a

The new Wayne department head told 40 industrial physicians attending a luncheon in his honor that research, especially on preventive measures; instruction, both on graduate and undergraduate levels; and general service to the entire community would be the aims of the new program. The department will serve as a focal point for problems in industrial medicine.

Dr. Vorwald, who received his doctor of philosophy and medical degrees from the University of Chicago, is one of the experts who made a study of the deadly smog that killed a score of residents of Donora, Pa., and made 300 others ill. A naval captain in World War II, he served as medical attache in the American embassy in London and was director of the medical division of the Office of Naval Research.

He formerly taught at the University of Rochester and at New York University. One of the nation's top consultants on atomic energy, he is a member or consultant to many other scientific groups.

"The teaching program of a school needs to be tailored to the special needs of the area, and with the establishment of this new department, we will provide all students with moderate indoctrination in the problems with particular emphasis on preventive measures," Dr. Gordon H. Scott, Dean of the College of Medicine, stated.

Industrial medicine does not limit itself to any particular type of treatment but covers virtually every phase of medicine, from psychiatry to surgery to safety habits. It has to take into account emotional factors, as well as sociological and economic ones.

CLASSIFIED ADVERTISEMENTS

Advertisements under the headings listed are published without charge for those physicians whose names appear on the MEDICAL TIMES mailing list of selected general practitioners. To all others the rate is $3.50 per insertion for 30 words or less; additional words 10c each.

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Physicians	Equipment
Locations	Practices
Equipment	FOR RENT
Books	MISCELLANEOUS

CLASSIFIED ADVERTISING FORMS CLOSE 15th of PRECEDING MONTH. If Box Number is desired all inquiries will be forwarded promptly. Classified Dept., MEDICAL TIMES, 676 Northern Boulevard, Great Neck, L. I., N. Y.

OFFICE TO SHARE

OFFICE, 4 rooms, fully equipped, available daily 12-4. Reasonable. Manhattan, New York. Phone TR 9-6486 (New York City) between 5-7 p.m., or write Medical Times, Box 7S1.

FOR SALE

DOCTOR'S HOME AND OFFICE combined, in busy shopping center, two blocks from Park Avenue Hospital. Eight rooms. Retiring. Write to C. W. Hennington, M.D., 633 Park Avenue, Rochester 7, N. Y., or Medical Times, Box 7E36.

PRACTICE, S. E. Pennsylvania town of 20,000, three hospitals, including 14 room house just redecorated, office first floor. Physician here 35 years. Can gross $25,000 general, upward with surgery. Leaving immediately due to ill health. Price $30,000. Write Joseph C. Kock, M.D., 215 Mahantongo Street, Pottsville, Penna., or Medical Times, Box 7F59.

GENERAL PRACTICE, Westchester (N. Y.). Only minimal investment required for equipment on premises. Giving up branch office in apartment building in growing community. Write Medical Times, Box 7F60.

DOCTOR'S HOME and equipment in stable California town. Large downtown office in excellent location. Large practice. Ideal for General Practitioner. Specializing. Write Medical Times, Box 7E37.

FOR RENT

PROFESSIONAL SUITE, 7 rooms in garden apartments on busy corner in center of town, reasonable rental. Write Owner, 25 South Village Avenue, Rockville Centre, N. Y., or Medical Times, Box 7R1.

DOCTORS AND PROFESSIONAL MEN. Applications are now being taken for space in Wantagh's (Long Island) new professional building. This completely modern one-story, air-conditioned building is centrally located at Wantagh and Austin Avenues. Occupancy about July 15th. For further information call or visit Crane-Scollay Real Estate Co., 3246 Sunrise Highway, Wantagh, N. Y. Sunset 5-6140 or Sunset 5-9622, or write Medical Times Box 7R2.

APOTHECARY JARS

Beautiful handmade and painted jars, imported from Germany. Wide assortment of styles and sizes. Rich colors. Ideal for office decorations, lamp bases, as vases, for mantel pieces, as gifts, etc. Limited supply, so order now. For complete details write Box 2W, Medical Times.

for antihistaminic action with minimum sedation

prescribe **NEOHETRAMINE**

The driver of an automobile, the child in school, and the office worker must maintain alertness during antihistamine therapy. For the ambulatory therapy of allergies, NEOHETRAMINE provides effective control of symptoms with a minimum of sedation. For this reason, it is widely prescribed in industrial medicine where dizziness or drowsiness would be most dangerous.

FOR CHILDREN

prescribe pleasant tasting

NEOHETRAMINE SYRUP

alone or as a vehicle for other medication

DOSAGE:

Adults, 50 to 100 mg., two to four times daily. Children, 25 mg., two to four times daily.

Some patients will require larger dosage. Because of the wide margin of safety of Neohetramine, dosage may be gradually and cautiously increased until a therapeutic effect is obtained or side effects appear. In the great majority of cases, the therapeutic dosage will not cause uncomfortable side effects.

SUPPLIED:

In tablets of 25 mg., 50 mg., 100 mg., in bottles of 100 and 1,000. Syrup, 25 mg. per teaspoonful (4 cc.) in pints and gallons. Cream, 2%, in one ounce tubes.

when alertness is all-important

NEOHETRAMINE®

Hydrochloride

Brand of Thonzylamine Hydrochloride

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MEDICAL TIMES, JULY 1954

Advertisers' Index

TREVIDAL®

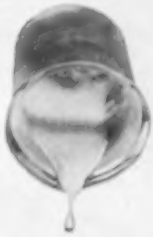
the Ideal Antacid for the Treatment of Hyperacidity, Gastritis, and Peptic Ulcer

Fast Action

Trevidal tablets provide fast relief for they disintegrate completely in less than a minute.

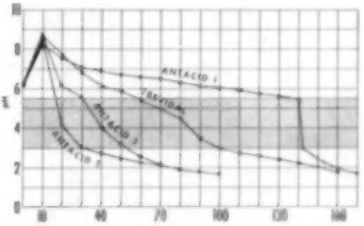
Protective Coating

Regonol, a unique vegetable gum, assures a mucilaginous protective coating to irritated stomach surfaces.



Prolonged Effect

Egraine, a special binder from oat flour, plus a balanced formula of antacids assures prolonged antacid activity.



BALANCED FORMULA

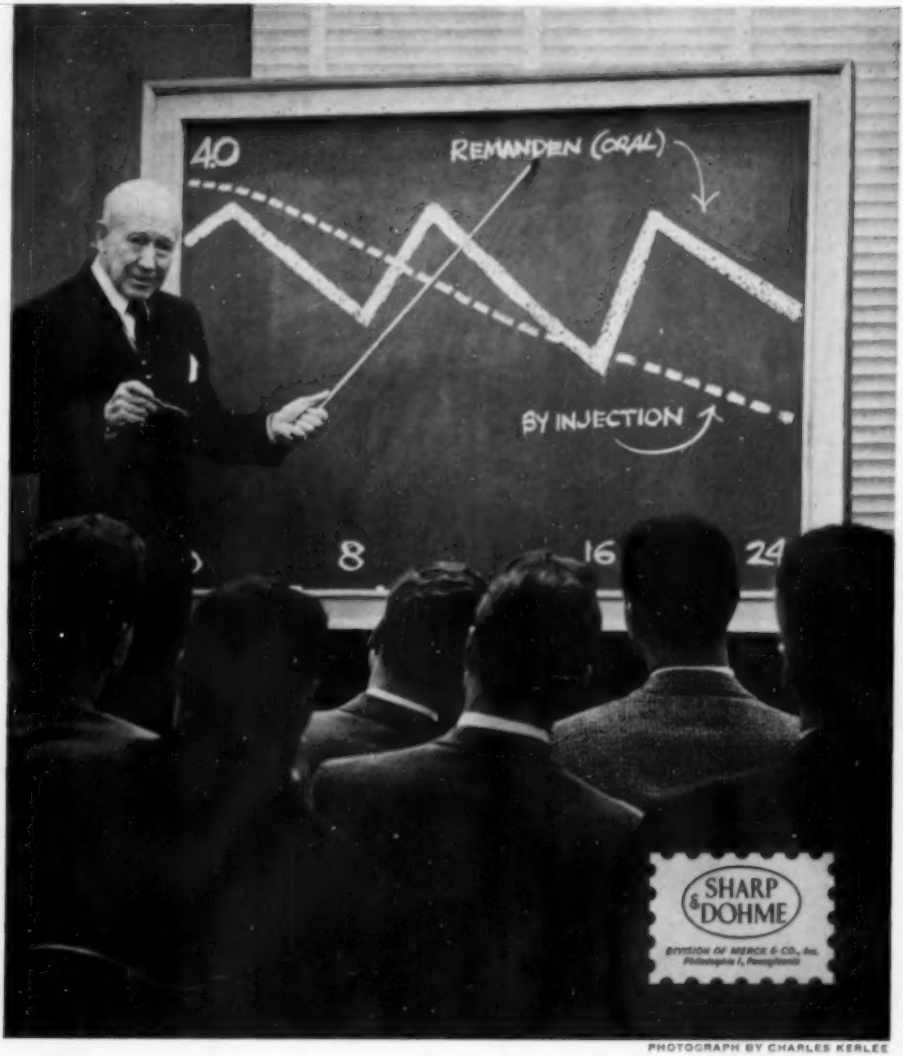
aluminum hydroxide gel, dried	90 mg.
calcium carbonate	105 mg.
magnesium trisilicate	150 mg.
magnesium carbonate	60 mg.
Egraine*	45 mg.
Regonol*†	100 mg.

In each tablet, this balance of slow- and fast-acting antacids designed to avoid constipation, diarrhea, and alkalosis.

Prescribe Trevidal in boxes of 100 tablets, specially stripped for easier carrying.

*Trade Mark †Cyamopsis tetragonoloba gum

Organon INC. • ORANGE, N. J.



PHOTOGRAPH BY CHARLES KERLEE

Note the sustained penicillin levels with oral

REMANDEN®

PENICILLIN WITH PROBENECID

The probenecid in this oral tablet produces sustained plasma levels comparing favorably with those obtained by intramuscular procaine penicillin.[1] Compared with other oral penicillin preparations, penicillin plasma levels are 2 to 10 times higher.

Quick Information: REMANDEN-100 and REMANDEN-250 supply 0.25 *Gm.* BENEMID® (probenecid) per tablet and 100,000 or 250,000 units of crystalline penicillin G. *Dosage: Adults,* 4 tablets initially, then 2 every 6 or 8 hours. *Children,* usually 2 to 4 tablets daily.

Reference: 1. Antibiotics & Chemotherapy 2:555, 1952.